CHAPTER I

INTRODUCTION

Child is the heritage of family and children's health is India's health. Every year respiratory infection in young children would be responsible for an estimated 4.1 million deaths worldwide. India and Nepal together account for 40% of the global respiratory infection mortality. Among respiratory infection Primary complex is a ubiquitous disease known to have been existing from ancient period. The disease has been perpetuated and maintained in the human population. It represents a dynamic balance to man and mycobacterium tuberculosis action.

WHO (2011) reported that all children less than five years of age who are in close contact with a sputum smear positive index patients should be actively traced, screened for tuberculosis, and provided with preventive chemotherapy after an active tuberculosis has been excluded. Although this would be good policy, implementation is fraught with challenges, including difficulty in diagnosing latent tuberculosis in highly bacilli calmette Guerin vaccinated population,

ruling out incipient active disease, and lack procedures for documentation and follow up care of contact screening and chemoprophylaxis in national programs. Because the majority of transmission in children will be in less than three years of age occurs in the house hold and they are also the group at highest risk of progression to disease after primary infection, This activity should be given higher priority in National infection control programs. Moreover, active tracing and screening of house hold contacts at high risk would allow children with disease to receive a diagnosis earlier, for complications.

World health organization (2010**)** reported that the number of new cases continues to fall globally and in five of the six WHO regions. The exception in Southeast Asia, where incidence remains stable. In many countries tuberculosis prevalence has been declining. Worldwide, deaths from tuberculosis fell by thirty five percent between 1990 and2009. If current trends continue the world can meet the millennium development goal target for incidence that new cases should be falling by 2015 and the stop partnership target to have tuberculosis mortality by 2015 in comparison with 1990. Treatment success rates continue to measure in terms of smear positive

pulmonary tuberculosis only. Of the 2.6 million cases notified in 2008, 86% was successfully treated against the new ninety percent target included in the 2011-2015 update of the global plan to stop tuberculosis .

Smi .L (2009) stated that respiratory system dysfunction is a frequent health concern for children across the life span. Rapid population growth increased industrialization and rising use of automobiles most of the rapidly growing cities are facing with deteriorating air frequently. The effect of exposure to inhaled particles and gases inside and outside the home on the health of small children is profound. Aim of the primary complex prevention is to cure disease, to restore quickly and preserve work capacity, allow them to be within the family and community and there by maintaining their socio economic status. The fight against primary complex is best to be conducted within the setting of a national tuberculosis programme, integrated with general health services on the basis of promotive, curative and preventive aspects.

HEALTH PROTECTION AGENCY (2004) reported number of cases in this country began to rise again in the late 1980's and this trend has continuing with about 7,000 cases a year, mostly occurring in inner city areas. One of the contributory factors for the rise, particularly in sub Saharan Africa, is the spread of Acquired immuno deficiency syndrome (AIDS), which suppresses the immune system, making it easier to contact the disease.

Munoiz.k (2004) stated that the children who are left untreated with active primary complex will reinfected between 10-15 people every year. Primary complex is a fascinating albeit frightening infectious disease. It affects people more than any other infectious disease; it has been increasing with the global pandemic and an emergence of drug resistance. Globally the WHO reports that more than nine million new cases of tuberculosis occur every year and an estimated 19-43.5% of the population has been infected with mycobacterium tuberculosis.

NEED FOR THE STUDY:

The health status of today's children reflects the health consciousness of the parents especially the mothers. The state of children's health at present everywhere challenges the national and international organizations. Children are in the front line to have a safe start in life and pursuing a future of equity and social justice. The promotive, preventive and curative services will be effectively utilized by the under five, when the maternal awareness towards the health of the children improves. The immune system of the children has not been developed completely and also the growth would be very fast in the children's individual life. So they have more susceptible for many infectious diseases, of which the commonest of respiratory, gastro intestinal and skin infections. The respiratory tract constantly grows and changes until about twelve years of age. The young children's neck is shorter than adult, resulting airway structures that are closer together, which make them more prone for infection mortality of lower respiratory infections cause 20 - 25% of deaths in children. In India 10-50 children die out of 1000/year because of lower respiratory tract infection.

Global hunger index (2011) ranked India is in fifteenth, amongst leading countries with hunger situation. It also places India among at the three countries where the global hunger index between 1996 and 2011 went up from 22.9 to 23.7. The World Bank estimates that India is ranked second in the world of children suffering from malnutrition, where 47% of the children exhibit a degree of malnutrition. The prevalence of underweight children in India is among the highest in the world.

Soumya.S (2011) reported that tuberculosis is among the top ten causes of death among children worldwide; however, children with tuberculosis are given low priority in most national health programs and are neglected in this epidemic. Recent technological advancements in diagnosis of tuberculosis in adults have not been validated in children. Similarly, trials of new drugs and development of pediatric formulations of standard first and second line drugs are lagging behind. Although bacilli calmette Guerin vaccine, the only vaccine available for tuberculosis, protects against disseminated and severe forms of the disease in young children, multi centric trials are urgently required to develop improved diagnostic strategies and formulate shorter, more effective, safe, and evidence based regimens

for treatment and prevention of drug susceptible and drug resistant tuberculosis.

WHO (2010) reported the strategy of using standardized treatment regimens and ensuring adherence with the use of directly observed treatment has been accepted and implemented in most resource poor countries. Population based studies have shown that case finding, classification and treatment of children is feasible in programs using the directly observed therapy, short course strategy, worst outcomes in young children and the occurrence of adverse events . Other reasons for low success rates in low income countries include poor compliance and non completion of treatment, late presentation by patients and delay in diagnosis by health care workers, incorrect diagnosis, mal absorption of anti tuberculosis drugs in severely malnourished children and multi drug resistant tuberculosis. The proportion of cases managed by the national tuberculosis program varies by country and non uniform management practices used the private sector contribute to poor outcomes.

Tsuchidak and koyanagi,H.(2005) conducted a study on outcome of directly observed therapy for primary complex in yokohama city in Japan, the results showed that the treatment completion for the direct observation therapy was 87.2% and 68.3% direct observation therapy was shown to be significantly to the self administered regimen.

Bernatis .J et al.,(2004) reported on decentralization of directly observed treatment is the best treatment mode for primary complex. The results showed that an urban decentralization of direct observation therapy increases the chances of treatment success among smear positive children. Another center for supervised treatment needs to be created in one of the public health center, the success rate was 58%.

Children who are malnourished are very prone to get primary complex. There are many recent studies reported that primary complex is an emerging problem in our country. The investigator while attending the educational intervention program found that most of the mothers have very poor knowledge about prevention of primary complex. So the investigator felt the need to create awareness among mothers in relation to prevention of primary complex through educational intervention program and motivate them to follow the

methods of prevention thereby preventing the morbidity, mortality and future complications. This has greater influence over the future generation as today's children are the future citizens.

STATEMENT OF THE PROBLEM:

Effectiveness of educational intervention on prevention of Primary complex among mothers of malnourished children.

OBJECTIVES:

1.to assess the level of knowledge on prevention of primary complex among mothers of malnourished children

2.to evaluate the effectiveness of educational interventions on prevention of primary complex among mothers of malnourished children

3.to associate between the level of knowledge on prevention of primary complex among mothers of malnourished children with selected demographic variable

OPERATIONAL DEFINITION:

EFFECTIVENESS:

It refers to the outcome of educational interventions in terms of prevention of primary complex

EDUCATIONAL INTERVENTIONS:

Formal teaching on various aspects of primary complex such as causes, signs and symptoms, treatment prevention and protection from complications through lecture method with discussion.

PRIMARY COMPLEX:

Primary complex is a common and often deadly infectious disease caused by various strains of mycobacterium; usually mycobacterium tuberculosis usually attacks the lungs and also affects the other parts of the body.

MOTHERS:

Mothers who are having malnourished children and attending at urban health center, madurantakam

MALNOURISHED CHILDREN:

According to Indian Academy of Pediatrics (1972) the malnutrition is classified based on weight for age

Grade I _ 80-71% of expected weight

Grade II _ 70-61% of expected weight

Grade III _ 60-51% of expected weight

Grade IV _ < 50 % of expected weight

ASSUMPTION:

Mothers have inadequate knowledge on prevention of primary complex. Educational interventions will improve knowledge regarding prevention of primary complex

LIMITATION:

1. Sample size was limited to 60
2. Study was limited to children with malnutrition at community urban health center, madurantakam, kanchipuram district
3. The period of study was limited to six weeks

PROJECTED OUTCOME:

This study impart a thorough knowledge on prevention of primary complex. The outcome of the study will help the mothers of malnourished children to gain adequate knowledge regarding prevention of primary complex.

CONCEPTUAL FRAME WORK

A conceptual frame work for the study was derived from general systems theory by Von- Bertalanffy, according to this theory, a system consisting a set of interacting components with a boundary that filters the type and rate of exchange with there is continual exchange of matter, energy and information.

Input

A system imparts products known as input in this study after assessing the existing knowledge; the investigator has given educational intervention regarding prevention of primary complex in the input process.

Throughput

Through put is the activity phase. It is a process that allows the input to be changed.

Output

The information are continuously processed through the system and released as output in an altered state.

In this study the demographic data and pre-test knowledge in relation to prevention of primary complex, meaning, etiology, causes,

signs and symptoms, diagnosis and management, prevention was administered to the mothers with malnourished children on prevention of primary complex through put is the activity phase where the change in knowledge and understanding regarding primary complex occurs. Output is measuring the knowledge of mothers of malnourished children regarding prevention of primary complex, after the post test with same structured multiple choice questionnaires.

FEEDBACK:

Feedback is the environmental response of the system. Feedback may be positive or negative or neutral. Feedback emphasizing to strengthen the input and throughput. It is necessary of the results showed any inadequate knowledge.

CHAPTER II

REVIEW OF LITERATURE

Literature review is a key step in the research process. The main goal of literature review is to develop a strong knowledge base to carry out research activities in the education and clinical practice. The investigator carried out extensive review of literature relevant to the research topic which to gain insight and to collect information for laying the foundation of the study.

This chapter entails:

1. Literature related to primary complex
2. Literature related to cause of primary complex
3. Literature related to treatment of primary complex
4. Literature related to the prevention and control of primary complex

1. LITERATURE RELATED TO PRIMARY COMPLEX

Vijayakumar .M (2011) reported that cell mediated immune status of sixty five children suffering from various clinical forms of tuberculosis and thirty age and sex matched healthy children aged between one and five years was investigated to understand the role of malnutrition in tuberculosis. A significant association between severe malnutrition and severe forms of infection was observed. Data on cell mediated immune status showed immunosuppressive effect of tuberculosis per se in all children. Well nourished children had similar cell mediated immune status irrespective of the severity of the disease while malnourished children with severe forms of disease showed lowest cell mediated immune status. The results point out the importance of better nutritional status of the child in preventing the severe forms of disease.

Tim de maayer.J (2011) reported that HIV infection significantly increases severe malnutrition case death. WHO guidelines for the management of severe malnutrition in high HIV prevalence settings need to be modified to include routine HIV and tuberculosis testing

and offer guidance on the criteria and timing of tuberculosis treatment and highly active anti retro viral therapy initiation.

Madhukar.P (2010) reported that nearly a one third of the population is estimated to be infected with mycobacterium tuberculosis currently diagnosis of latent tuberculosis infection relies on the tuberculin skin test a century old test. Recent advances in the diagnosis of primary complex say that in vitro t-cell based interferon y release assays are helpful in detecting primary complex among antenatal mother.

WHO (2009) reported that accurate diagnosis of childhood tuberculosis remains a major challenge. Recent advances in the diagnosis of childhood tuberculosis such as symptom based approaches, novel immune based approaches, bacteriological and molecular methods that are more rapid and or less expensive than conventional culture techniques have improved our ability to diagnose latent infection and reduce the incidence of primary complex.

Liguori.A(2008) conducted a study on recurrent respiratory infections. The result showed the recurrent respiratory infection is a common and benign condition affecting about 6% of school children.

Only mild, likely post infective, modifications of the immune system have been proven and parents should be reassured that the condition is self limited. It is essential to observe environmental factors reducing environmental tobacco smoke at home is a fundamental goal and the postponed enrolment of children at day care centers reduces the risk of recurrent respiratory infections.

Alex sandrov.L(2007) stated that polymer basis of an immune magnetic polymerized chain reaction using a new procedure for preparing sputum samples for deoxy ribo nucleic acid isolation on the separation of mycobacterium are employed to examine sputum sample from 141 children which first diagnosed primary complex.

Ratobyl .K (2006) stated that the radiation technique is the only method for family identification of primary complex.

Bernantas.J (2005) has done a study on decentralization of DOTS. The results showed that an urban decentralization of DOTS increases the chances of treatment success among smear positive patients another center for supervised treatment needs to be created in one of the public health centers. The success rate was 58%.

WORLD HEALTH ORGANISATION (2005) published statistical report on Primary complex in association with world tuberculosis day. the report shows India, china and Indonesia accounts for half of the tuberculosis cases in the world. Forty percent of Indian population is affected with tuberculous bacilli. Every year eighteen lakh people in india develops primary complex of which nearly eight lakh are infectious sputum positive cases.

Everyday more than 20,000 people become infected with primary complex more than 5000 develops primary complex and more than 1000 die due to primary complex and about 104 million new primary complex cases are estimated to add the members already infected and 7,00,000 die.

In the years of 2005 nearly 10% foreign born primary complex cases were identified from India, two million people are diagnosed which test annually according for almost one fourth of the world's new primary complex cases.

CONTROL PROGRAMME FOR COMMUNICABLE DISEASE (2005) reported that primary complex control programme has reached more than 40% Indian, population over forty million 18% of children are being successfully treated and the death rate among primary complex children in areas served by the programme has dropped 4% compared to previous estimates of 29%. Around hundred and thirty two million of majority of that about 90% goes directly out of the state and local health department of tuberculosis programme.38% of population in all ages and both sexes are infect with tuberculosis basically in males almost 70% of all age but only 0.4% would be average prevalence rate of basic care 70% of total care where in the population of fourteen years.

Chan.C(2004) conducted a study on genetic susceptibility to tuberculosis. The results showed the genetic variants of tuberculosis susceptibility genes will provide a better understanding of disease mechanism in tuberculosis.

2. LITERATURE RELATED TO CAUSE OF PRIMARY COMPLEX

Mugerwa.R.,(2008) conducted a study on whole blood interferon gamma responses to mycobacterium tuberculosis antigens in young household contacts of persons with tuberculosis in uganda. Young household contacts demonstrated robust IFN gamma responses comparable to those of adults that were associated with risk factors for infection. There was no effect of prior BCG immunization of the IFN gamma response.

WHO (2006) reported that primary complex occurs more disproportionately among disadvantaged populations, such as homeless individuals, malnourished individuals and those living in crowded areas.

Central TB division (2004) reported that inhalation of an infected droplet nucleus which are discharged in the air when a patient with an untreated sputum positive tuberculosis the person spreads the disease by coughing or sneezing is the major cause of primary complex.

American academy of pediatrics (2003) stated that malnutrition is a major cause of Primary complex

Hertwiz .K., (2002) reported that the children who are with AIDS as recently an out based primary complex having killed 3 million children.

3. LITERATURE RELATED TO TREATMENT OF PRIMARY COMPLEX

Ozturk.C., (2011) reviewed the medical records of children with a diagnosis of tuberculosis. Tuberculosis was confirmed by isolation of mycobacterium tuberculosis from body fluids in cases with clinical and imaging findings compatible with the disease. In case of negative cultures, tuberculosis was defined by histo pathological evidence of mycobacterial infection and with positive tuberculin skin test, history of exposure to tuberculosis, and detection of acid fast bacilli in body fluids.

Ferebee .C., (2010) established that isoniazid administered daily for six to nine months was effective in preventing tuberculosis in children with latent tuberculosis infection. Short course regimens of isoniazid and rifampicin for three to four months appear to be safe and superior

to nine months of isoniazid mono therapy, mainly because of better compliance, preventive therapy has the potential to play a major public health role by reducing the incidence of tuberculosis and tuberculosis associated mortality.

Donald .H., (2010) concluded that ethambutol at a daily dose of 20mg/kg and a dosage of 30mg/kg given 3 times per week was safe in children of all ages, lower doses were ineffective. Correct doses of anti tuberculosis drugs is an essential prerequisite for complete cure, and the consequences of sub optimal blood levels include treatment failure and drug resistance. Pharmacokinetic studies to establish optimal doses of first line and newer anti tuberculosis drugs are urgently required to provide evidence based recommendations in children. A further issue that needs attention is making available pediatric formulations, although liquid formulations are easy to administer to young children, they are bulky, more expensive and have unacceptable toxicity in some instances.

Soyeon.K., (2010) reported that the growing pipeline of potential new tuberculosis drugs, there are presently several novel compounds that are in various stages of clinical development, including the flouroquinolones, TMC207,OPC67683 and PA824.

Guscino.J., (2007) detected that out of 222 adolescents with primary complex 115 received short term intensive direct observation treatment short course chemotherapy and 107 had conventional triple antibacterial treatment regimen. The advantages are it is relatively better results with a reduction in the duration of treatment by 1-5 months.

Zodpey.S., **(2006)** conducted a study on hospital based pair matched case control study in Government medical hospital and college atmosphere to estimate the effectiveness of BCG vaccination.

Results showed that BCG is effective in treatment of primary complex.

WHO (2006) reported that programmatic management of multi drug resistant tuberculosis, an optimal regimen should include a fluoroquinolone, an injectable (capreomycin, kanamycin, or amikacin)

and at least two of the following drugs cycloserine, thiomides, para amino salicylic acid, and first line agents other than isoniazid and rifampicin. Experience with second line tuberculosis drugs in children is limited, 38 children in peru were treated with supervised, individualized regimens consisting of five drugs in the program. Despite half of these children being anemic and malnourished, treatment was well tolerated and resulted in a 95% cure rate.

Kent.H., (2006) said that through DOTS a cure has existed for more than half a century. Primary complex remains one of the human kinds greatest than one third of world's population are infected

Rekha.S., (2005) stated that Rifampicin is a crucial component of treatment regimen of primary complex has been since the early 1930's its usually considered safe.

Ismail.H., (2004) reported that an empirical treatment with Anti tuberculosis drug is safe and beneficial.

American academy of pediatrics (2003) stated that a six month course of ATB drugs is essential for children with primary complex.

4. LITERATURE RELATED TO PREVENTION AND CONTROL OF PRIMARY COMPLEX

Charles .M., (2011) reported that refinement of existing tools and development and testing of new tools are urgently required to improve diagnosis and treatment of tuberculosis in children. Higher global priority and funding will be required to reduce the unnecessary and avoidable morbidity and mortality occurring currently. In addition to reducing the burden of adult tuberculosis, attention to childhood nutrition and improvement in the socio economic and environmental condition of communities is likely to have a significant impact on tuberculosis to children.

Basu.B., (2011) reported that close contacts in school and household play a critical role in transmission of multi drug resistant tuberculosis among children and there is more chance of acquiring common strain of extensive drug resistant tuberculosis in children with of same geographical area . Though more research with larger sample size and better contact tracing are required to establish this observation.

Rashi.L., (2010) had stated that supplementation of Vitamin D rich sources such as milk in the elementary school, will reduce the risk of Vitamin D deficiencies among primary complex children.

Gogus.C., (2009) pointed out that the point of entry to health care for many children with tuberculosis is the emergency department. The more manifestations of tuberculosis in children can decrease the utility of screening tools developed to identify adults with tuberculosis. While tuberculosis in adults often is a microbiologic diagnosis, childhood tuberculosis is an epidemiologic diagnosis. Therefore, questioning care givers about risk factors in the family may identify a higher percentage of children with possible tuberculosis.

Craig.A., (2009) stated that administered BCG among children at birth is an effective method of preventing childhood tuberculosis.

WHO (2006) reported that in recent survey, vaccination provided100% protection against primary complex.

Lancet. C (2006) conducted a study on evolution on of world health organization policies for primary complex control.The results showed

that a multispectral approach that builds on global & national partnerships is the very to future primary complex control

Ichiyam.G., (2006) conducted a study for disease control and prevention and its recommendation for the rapid diagnosis in the laboratories. The smear results should be reported with in twenty four hours detection and identification with in ten to fourteen days and susceptibility with in fifteen to thirty days

Larninger.B., (2005) conducted a study on policy programme to minimize spread of infection prolonged cough may be a symptoms of tuberculosis. The results showed that non vaccinated young adults are now entering the health care sector. They should be offered BCG vaccination.

CHAPTER III

METHODOLOGY

Research methodology is a systematic way to solve a research problem. There is no way to gain knowledge of the universal expectation through the gateway of scientific method. Methodology enables the researcher to project a blue print of the research to be undertaken.

RESEARCH DESIGN:

The design chosen for study is quasi experimental one group pretest – post test design

SETTING:

The setting of the study was urban health center, madurantakam, kanchipuram district

POPULATION:

The study population comprises of all mothers who have malnourished children

SAMPLE SIZE:

A sample size of 60 mothers with malnourished children who fulfill the inclusion criteria.

SAMPLING TECHNIQUE:

Convenient sampling technique has been adopted for this study

CRITERIA FOR SAMPLE SELECTION:

INCLUSIVE CRITERIA:

1. Children up to 12 years
2. Mothers who understand Tamil
3. Mothers who are willing to participate

EXCLUSIVE CRITERIA:

1. The children with chronic health problems
2. Mothers who were selected for pilot study

INSTRUMENT

The instrument used for data collection was an interview schedule. This was developed based on the objectives

Details of the tools used in this study are given below:

Section 1: Demographic variables

Section -2: Questionnaire method

METHOD OF DATA COLLECTION

The study was conducted in Urban health center, Madurantakam, Kanchipuram district. The data was collected for a period of six weeks by using prepared tools. The tools had been developed on the basis of objectives of the study and through review of literature.

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with analysis and interpretation of data collected from 60 mothers of malnourished children. It deals with description of tool, report of the pilot study, reliability, validity and informed consent, scoring procedure, scoring interpretation, data collection procedure and statistical method.

DESCRIPTION OF THE TOOL

This instrument used for data collection was questionnaire method. This was developed based on the objectives of the study through review of literature.

The instrument consist of two parts

PART I:

It consists of demographic variables of mothers of malnourished children, such as age, religion, educational status, occupational status, type of family, family income, number of children in the family, knowledge of health related information. The data had been collected by interviewing the mothers of malnourished children and based upon their answers .A tick mark (✓) was put for the appropriate response of each item.

PART II:

The data had been collected through the well prepared questionnaire. It consists of 30 questionnaires and the total score was 30. Each correct response was given a score of one. For the incorrect response zero was given.

REPORT OF PILOT STUDY

Prior permission from the authorities had been obtained and individual consent had been taken from the six samples selected for the study. The pilot study was conducted in Madurantakam town for one week .The questionnaire method was used to find out the reliability, validity, feasibility and practicability of the tool and which was evaluated by experts of the Research committee. According to non probability convenient sampling technique was used, five samples had been taken and by using the questionnaire method the effectiveness of educational intervention programme on prevention of primary complex among mothers of malnourished children was assessed. The results of the pilot study showed that there was a significant improvement of knowledge regarding the prevention of primary complex among mothers of malnourished children.

VALIDITY

The tool was prepared by the investigator under the guidance of experts and on the basis of objectives, which had been assessed and evaluated. The content validity of the tool was obtained from research experts from the field of pediatric nursing.

RELIABILITY

The reliability was checked by inter rater method. The reliability was 0.7. Reliability and practicability of the tool was tested in pilot study and used for main study.

INFORMED CONSENT

The dissertation committee prior to the pilot study approved the research proposal. The investigator obtained written consent from the recommendation committee and from the urban health center, Madurantakam town. Oral consent was taken from the study participants to conduct the study. The data collection was done for six weeks by using interview and observational method. After assessing the mother with malnourished children educational intervention was given. After seven days post test was conducted.

DATA COLLECTION PROCEDURE

The investigator introduced herself to the mothers of malnourished children and developed a good rapport and made the mothers to cooperate and accept the study. After getting demographic data from the mothers pretest was done with the help of the prepared tools. Prevention of primary complex was shown to the mothers by using charts and flash cards. After Seven days post test was done to evaluate the effectiveness of educational intervention programme by using the prepared tools.

SCORING PROCEDURE

PART –I

Information on demographic data was collected from the women on ten variables and this was not scored but used for descriptive analysis.

PART-II

The instrument of part –II consists of thirty questions. Each correct response was given a score of one and for the incorrect response zero was given.

SCORE INTERPRETATION

The instrument consists of 30 questions regarding prevention of primary complex. The maximum score was thirty and minimum score was zero. Based on the scoring percentage of knowledge calculated by using the following formula,

$$\text{Score interpretation} = \frac{\text{Obtained score}}{\text{Total Score}} \times 100$$

Based on information data were classified as follows.

≤ 50% - inadequate knowledge.

51-75 % - moderately adequate knowledge

≥ 75 % - adequate knowledge.

STATISTICAL METHODS

S.NO	DATA ANALYSIS	METHODS	REMARKS
1.	Descriptive analysis	The total number, percentage, mean and standard deviation.	To describe the demographic variables among mothers of malnourished children.
2.	Inferential analysis	sign‘ k ’ test	Analyzing the effectiveness between pretest and post test
		Chi square	Analyzing the association between demographic variables and knowledge on prevention of primary complex among mothers of malnourished children

This analysis of data had been organized and presented based on the objectives in the following sections.

SECTION –A

Frequency and percentage distribution of demographic variables of mothers with malnourished children about the prevention of primary complex

SECTION - B

Frequency and percentage distribution of level of knowledge among mothers with malnourished children regarding prevention of primary complex on pre test day and post test day.

SECTION – C

Comparison between mean and standard deviation of pretest and post test for effectiveness of educational intervention on prevention of primary complex among mothers with malnourished children.

SECTION – D

Mean and standard deviation of improvement score for prevention of primary complex among mothers with malnourished children.

SECTION – E

Analyzing the association between demographic variables and knowledge on prevention of primary complex among mothers with malnourished children.

SECTION –A

TABLE 4.1: FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF MOTHERS OF MALNOURISHED CHILDREN ABOUT PREVENTION OF PRIMARY COMPLEX N=60

S.NO	DEMOGRAPHIC VARIABLES	NUMBER	PERCENTAGE
1.	**Age in years**		
	a) 18 – 21	14	23.0
	b)22 – 25	30	50.0
	c)above 25	16	27.0
2.	**Religion**		
	a) Hindu	31	52.0
	b) Muslim	16	27.0
	c) Christian	13	21.0
	d) Others	0	0
3.	**Educational status of mother**		
	a) Illiterate	11	18.0
	b) Primary school	4	7.0
	c) High school	15	25.0
	d) Higher secondary school	21	35.0
	e) Graduate	9	15.0
4.	**Family income per month**		
	a)Below Rs.1000/-		
	b)Rs.1001/-to Rs.3000/-	0	0
	c)Rs.3001/- to Rs.5000/-	13	21.7
	d) Above Rs.5000	19	31.7
		28	46.6
5.	**Occupational status of father**		
	a) Coolly	8	13.0
	b) Self employed	24	40.0
	c) Private employee	15	25.0
	d) Government employee	13	22.0
6.	**Occupational status of mother**		
	a) Home maker	32	53.3
	b) Coolly	4	6.7
	c) Self employed	13	21.6

	d) Private employee	7	11.7
	e) Government employee	4	6.7
7.	**Residential area**		
	a) Urban	29	48
	b) rural	31	52
8.	**Type of family**		
	a) Nuclear family	28	47
	b) Joint family	32	53
9.	**Number of children in the family**		
	a) One	24	40
	b) Two	20	33
	c) Three and above	16	27
10.	**Type of marriage of the parent's**		
	a) Consanguineous	27	45
	b) Non consanguineous	33	55
11.	**Immunization of the child**		
	a) Yes	60	100
	b) No	0	0
12.	**Family history of tuberculosis**		
	a)Yes		
	b) No	19	32
		41	68
13.	**method of drainage**		
	a) Closed	28	47
	b) Open	32	53
14.	**Sources of the health information through**		
	a) Mass media	22	37
	b) Health team personnel	27	45
	d) Friends and relatives.	11	18

Table 4.1depicts that the frequency and percentage distribution of demographic variables of mothers. Is evident that out of 60 mothers, 14(23%) had been aged between 18-21years, 16(27%) had been aged above 25 years. Religion reveals that out of 60 mothers 31(52%) had been Hindus, 16(27%) had been Muslims. Regarding educational status of the mothers four (7%) had been primary school education, 21(35%) had been in higher education level. Occupation of mothers reveals that 32(53%) had been home maker, four (7%) had been coolly. In case of family system of mothers 28(47%) of them live in a joint family and 32(53%) living in nuclear family. Concerning with the family income, 13(22%) had income between Rs.1001-3000, 28(47%) had been having income above 5000.Regarding number of children in the family 24(40%) having one child, 16(27%) had been having more than three children. Type of marriage of the parents 27(45%) are consanguineous, 33(55%) are non consanguineous. Regarding immunization history 60(100%) all children are immunized. Regarding family history of tuberculosis 19(32%) are having family history, 41 (68%) are not having family history of tuberculosis. Regarding method of drainage 32(53%) are following open type, 28(47%) in closed type of drainage. source of

the health information is through health personnel 27(45%), 11 (18%) from friends and neighbours.

SECTION – B

TABLE – 4.2: FREQUENCY AND PERCENTAGE DISTRIBUTION OF LEVEL OF KNOWLEDGE AMONG MOTHERS OF MALNOURISHED CHILDREN REGARDING PREVENTION OF PRIMARY COMPLEX ON PRE TEST DAY AND POST TEST DAY.

N=60

LEVEL OF KNOWLEDGE	ADEQUATE KNOWLEDGE		MODERATE KNOWLEDGE		INADEQUATE KNOWLEDGE		TOTAL	
	No	**%**	**No**	**%**	**No**	**%**	**No**	**%**
pretest	0	0	21	35	39	65	60	100
Post test	48	80	12	20	0	0	60	100

Table 4.2shows that the knowledge level of the mother with malnourished children regarding prevention of primary complex through the pre test and post test based on questionnaire method. On the pre test 21(35%) had been moderate knowledge, 39(65%) had been inadequate knowledge. In the post test 48 (80%) had been adequate knowledge, 12 (20%) had moderately adequate knowledge and none of them was in inadequate knowledge.

SECTION-C

TABLE – 4.3 MEAN AND STANDARD DEVIATION OF PRETEST AND POSTTEST SCORE ON PREVENTION OF PRIMARY COMPLEX AMONG MOTHERS WITH MALNOURISHED CHILDREN.

N=60

S. No	LEVEL OF KNOWLEDGE	MEAN	STANDARD DEVIATION	CONFIDENCE INTERVAL
1.	Pre test	14.4	3.03	13.74-15.65
2.	Post test	24.4	1.87	23.09-24.80

Table 4.3 that the overall mean of level of knowledge regarding prevention of primary complex among mothers with malnourished children was 14.4 with the standard deviation of 3.03 between the confidence interval of 13.74 and 15.65 in pre test and the mean in post test was 24.4 with the standard deviation of 1.87 between the confidence interval of 23.09 and 24.80.

SECTION – D

TABLE 4.4 MEAN AND STANDARD DEVIATION OF IMPROVEMENT SCORE FOR PREVENTION OF PRIMARY COMPLEX AMONG MOTHERS WITH MALNOURISHED CHILDREN.

N=60

SI.NO	LEVEL OF KNOWLEDGE	MEAN	STANDARD DEVIATION	SIGN'k' TEST
1	**Improvement score**	10.1	3.267	21.09

Table 4.4 reveals that the mean and standard deviation of improvement score for effectiveness of educational intervention on prevention of primary complex among mothers of malnourished children. The improvement score of mean value was 10.1 with the standard deviation of 3.267 and the 'k' test value was 21.09 which were statistically significant. It implies that the educational intervention was effective and showed improvement in knowledge level of mothers of malnourished children regarding prevention of primary complex at $p<0.05$.

SECTION-E

TABLE.4.5: ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND KNOWLEDGE ON PREVENTION OF PRIMARY COMPLEX AMONG MOTHERS OF MALNOURISHED CHILDREN

N=60

S.NO	DEMOGRAPHIC VARIABLES	LEVEL OF ATTITUDE			⍺2 VALUE
		<50%	51-75%	>75%	
		Inadequate Knowledge	Moderately adequate knowledge	Adequate knowledge	
1	**Age in years**				
	a.18-21Y	0	4	10	
	b.22-25Y	0	3	27	1.725
	c. Above 25	0	5	11	**NS**
2	**Religion**				
	a. Hindu	0	4	27	
	b. Muslim	0	4	9	2.017
	c. Christian	0	4	12	**NS**
3	**Educational status of caretaker**				
	a. Illiterate	0	3	8	2.452
	b. Primary	0	2	2	**NS**
	c. Secondary	0	4	11	
	d. Higher education	0	3	18	
	e. Collegiate	0	1	8	
4	**Income/month**				
	a. Rs<1000	0			0.066
	b.Rs1001-3000	0	4	9	**NS**
	c.Rs.3001-5000	0	2	17	
	d.>Rs.5000	0	6	22	
5	**Occupation as Father**				
	a .Coolly	0	1	7	0.066
	b. Self employed	0	5	19	**NS**
	c. Private	0	3	12	
	d. Government	0	3	10	

6	**Occupation as Mother** a. Homemaker b. coolly c. Self employed d. Private e. Government	 0 0 0 0 0	 7 - 2 - 3	 25 4 11 7 1	 0.016 **NS**
7	**Residence** a. Urban b. Rural	 0 0	 6 6	 23 25	 0.015 **NS**

NS- NON SIGNIFICANT

Table 4.5. Showed on association of the post test level of knowledge regarding prevention of primary complex with selected demographic variables among mothers of malnourished children. The table shows that there was no significant association between the level of knowledge on prevention of primary complex with demographic variables such as age, religion, educational status, occupation, type of family, residence, family income, number of children in family, family history of tuberculosis , method of drainage, type of marriage, knowledge of the health related information .

CHAPTER-V

RESULTS AND DISCUSSION

The aim of the present study was to evaluate the effectiveness of educational intervention on prevention of primary complex among mothers of malnourished children.

A total number of 60 mothers had been selected for the study. The pretest was conducted using a structured questionnaire. After pretest, educational intervention programme was conducted by the investigator. After seven days the post test was conducted by using the same questionnaire in the same manner. The study had proved that educational intervention programme had brought about excellent changes in the level of knowledge of mothers with malnourished children.

The first objective was to assess the knowledge on prevention of primary complex among mothers of malnourished children.

Table 4.2 showed that in pretest 38(63%) mothers had inadequate knowledge and 22(37%) mother had moderately adequate knowledge. It revealed that there was a lack of knowledge

on prevention of primary complex. Table 4.3 showed that mean of the pre test is 14.4 with the standard deviation of 3.03.

The findings of this study had been supported by Golda Mary Juliet (2001) who conducted a quasi experimental study to assess the effectiveness of a structured teaching programme on self care management of patients with tuberculosis. The result showed that none of the patients had adequate knowledge and forty eight (96%) patients had inadequate knowledge regarding prevention of disease.

The second objective of the study was to evaluate the effectiveness of educational intervention programme on prevention of primary complex among mothers of malnourished children

Table 4.3 showed in post test 48(80%) mothers had adequate knowledge, 12(20%) had moderately adequate knowledge. Table 4.3 showed that Improvement mean value of the knowledge was 24.4 with the standard deviation of 1.87

Table 4.4 reveals that the improvement mean score value of with standard deviation of and ’k’ value 21.09 was more than the table value at the level of significance. It implies that statistically there

was high significant improvement of knowledge regarding prevention of primary complex among mothers of malnourished children.

Rukmani.K (2004) conducted a study to evaluate the effectiveness of the structured health teaching to the defaulters of domicillary treatment and reported that there was a correlation between educational status and knowledge of tuberculosis. The findings of this study support the present study. This implies that the teaching programme had played a vital role in improving the knowledge.

The third objective was to determine the association between the demographic variables and the level of knowledge on prevention of primary complex among mother of malnourished children.

Table 4.5 showed that ststistically there was no significant association between knowledge of mothers with the demographic variables such as age, religion, educational status, occupational status, type of family, family income, number of children, and knowledge of the health related information.

CHAPTER –VI

SUMMARY AND CONCLUSION

Primary complex is among the top ten causes of death among children worldwide; however, children with tuberculosis are given low priority in most national health programs and are neglected in this epidemic. Recent technological advances in diagnosis of tuberculosis in adults have not been validated in children.

Similarly, trials of new drugs and development of pediatric formulations of standard first and second line drugs are lagging behind. The present study was conducted to assess the knowledge of mothers with malnourished children on prevention of primary complex. In this study quasi experimental one group pretest - post test design was used in this study. A total of 60 mothers who met the inclusion criteria had been selected from community urban health center, Madurantakam, Kanchipuram district, using convenient sample technique. The investigator first introduced herself to the mothers and developed a rapport with them. After the selection of sample, the interview was conducted with them.

CONCLUSION

In pretest out of 60 mothers of malnourished children, 21(35%) mothers processing moderate knowledge and 39(65%) had inadequate knowledge. In post test 48(80%) had adequate knowledge and 12(20%) had moderately adequate knowledge. The 'k' value 21.09 was compared with tabulated table value at the level of $p < 0.05$ was significant. So it was concluded that statistically the educational intervention on prevention of primary complex among mothers of malnourished children was effective.

IMPLICATION FOR NURSING PRACTICE:-

- Nursing care is the core of cure for any problem. Nurse can be instrumental in helping the mothers by teaching causes, clinical manifestation, treatment, and prevention.
- Nurses are in the best position to improve the knowledge of mothers and their families through health education.
- Nurses working in health care setting should practice health education an integral part of nursing profession.

IMPLICATION FOR NURSING EDUCATION:

- General nursing curriculum needs to be strong enough to assess the entire aspects of primary complex and to provide supportive educative care in preventing further complications of primary complex.
- Nurse educators when instructing the students, should provide adequate opportunity for them to handle children with primary complex and provide health education in community and clinical settings.
- The study calls for strengthening of health education in the present system of nursing education.
- Nursing personnel should be given in service education to update their knowledge.

IMPLICATION FOR NURSING ADMINISTRATION:-

- The leaders in nursing are confronted to undertake the health needs of the most vulnerable by effective organization and management. The nurse administrator should take active part in the health policy making, developing protocol, procedures, standing orders related to health education.

- ❖ The study finding will help the administrator to arrange continuing education programme for nurses regarding primary complex. It helps to prepare adequate learning material for giving health education.

- ❖ Educational intervention on role of the nurses along with the adequate supervision of nursing service would motivate them to carry out educative roles.

IMPLICATION FOR NURSING RESEARCH:-

- ❖ This study finding will identify the present level of knowledge of mothers with malnourished children to prevent the primary complex and to know the extent of necessary information is to be given.

- ❖ The findings of the study will help the professional nurses and student nurses to develop the inquiry by providing a baseline.

- ❖ This study will motivate other investigators to conduct future studies regarding this topic.

- ❖ This study will help the nurse researchers to develop insight into the developing of module and set information towards promotion of healthy life style and prevention of complications.

RECOMMENDATION:

Based on the research findings the following recommendations can be made

- ➢ Routine examination can be conducted in children with family history of tuberculosis.
- ➢ Educate all the parents regarding mantoux skin test.
- ➢ A study can be done to assess the magnitude of prevention of primary complex.
- ➢ Tuberculosis awareness campaign can be conducted to create awareness among public.
- ➢ Ongoing education programme with periodic monitoring should be done.
- ➢ This study can be done on the basis to assess the knowledge, attitude and practices
- ➢ Comparative study can be done in rural and urban areas
- ➢ This study can be done on large samples
- ➢ In-service education to community health workers regarding the importance of preventing tuberculosis in their community area.

BIBLIOGRAPHY

BOOK REFERANCE

1. Achar.S (2000), **"Textbook of Pediatrics"**, 6th edition; Orient longman, Chennai, Pp: 82 – 84.

2. Adela.P (1999),**"child health nursing",** 1st edition, Lippincott company, Philadelphia.

3. Aligard.M (2002),"**Nursing theorists and their work"**, 5th edition, mosby publication.

4. Beck's. N. (1994), **"Nutrition and Dietetics for Nurses"** 8th edition, Churchill livingstone, Newyork, Pp: 28 – 29.

5. Behraman E.R et-al., **"Textbook of Paediatrics"**, 15th edition, Prism books Pvt. Ltd., Bangalore Pp: 172 – 174.

6. Broadribb's.S., (2003), **"Introductory Pediatric Nursing"**, 6th edition, Lippircott Philadelphia Pp: 533

7. Bowden.M., et-al., (1995), **"Children and their families"**, 1st edition, W.B, Saunder's Company, Philadelphia, PP: 1593 – 1594

8. Chin J., (1983), **"Theory and Nursing"**, A systematic approach, C.V. Mosby Company, London.

9. Denise, (1999),**" Nursing research, principles and methods",** 6th edition, Lippincott company, Philadelphia**.**

10. Ghai. O.P., (2000), **"Essential Pediatrics"**, 6th edition, InterPrint, New Delhi.

11. Gupta. S., (1998), **"The Short text book of Paediatrics"**, 9th edition. Jay pee brothers, New Delhi, PP: 127 – 129

12. Hull.C., **"Essentials of Paediatrics"**, 4th edition Churchill Livingstone, Edinburgh, PP: 84

13. Kothari S., (1998) **"Research Methodology methods and techniques"**, Wiley eastern limited.

14. Mahajan Gupta., (2003), **"Text book of preventive and social medicine"**, 3rd edition, Jay pee brother's medical publishers Private Limited, New Delhi, pp: 354-355.

15. Marlow D. et. al., (1998) **"Text book of Pediatric Nursing"**, 6th edition W.B Saunders company, USA.

16. Michel.H, (1996) **"Pediatric problems in general practice"**, 6th edition , philadelphia.

17. Mitchell. P.A (1997), **"Nutrition across the life span"**, 1st edition, WB Saunders company, USA, pp: 8.

18. Nelson., (1990), **"Essential of pediatrics".** W.B Saunders company, Philadelphia pp: 74-75.

19. Park. K., (2000) **"Preventive and social Medicine",** 17th edition, Banarsidas Bhanot publishers, Jabalpur, India . pp: 416-418.

20. Pilliter. J., (1997), **"Child health nursing"** , 1st edition, Lipncott, Philadelphi, pp:766-767.

21. Wacheter H.E and Philips.J., (1993), **"Nursing care of children"**, 10th edition, Lippincott, Philadelphia.

22. Whaley. F.L., and Wong,s.L.P., (1999),**"Nursing care of infants and children"**, 6th edition, Mosby Publishers, pp:623.

23. Wong's L.P., (2001), **"Essentials of pediatrics Nursing"**, 6th edition, Mosby publishers, Missouri, pp: 385-386.

24. United nations integrated child emergency fund,(2002),"**Prevention of childhood and motherhood illness",** UNICEF, Newdelhi.

JOURNAL REFERANCE

25. Al dossary, et.al., (2008), "tuberculosis and treatment", **Journal of tuberculosis association, April 2008.**

26. Alora.V. et.al., "Effectiveness public private mix project for improved tuberculosis control" **medline(2005).**

27. Bettis.D, (2007)," primary complex diagnosis and treatment", **Journal of emergency medicine.**

28. Chem.C (2005)," genetic susceptibility of tuberculosis" **medinews, December(2005)**

29. Cantwell.M,(2006),” epidemiology of tuberculosis in the united states”,**JAMA(2008)**

30. Craig,et.al., (2007),”BCG on prevention of primary complex”,

IAJCPS, July 2007.

31. Ellatif.F(2002),”Risk factors of primary complex among children”, **Journal of Egypt public health association.**

32. Ghosh. S., (2004), “Nutritional problems in urban slum children“ **Indian journal of pediatrics**, **July 41 (7).**

33. Shamini,et.al.,(2006),”respiratory tract infection among young children”, **IAJCPS, January 2007**

34. World health organization (2006),” vaccination for tuberculosis prevention”, **June 2006**

35. Hidew.et.al., **(2005),** “prevention is better than cure- tuberculosis”, **July 2005**

36. Rulter, (2005),”respiratory tract infection**” Journal of pediatrics**

37.Richard,(2004),”tuberculosis and human immune virus infection**,medline,february 2004.**

38. Houston.S (2004),"tuberculosis and human immune deficiency virus", **the Canadian tuberculosis standards, Canadian lung association and health Canada, august 2004.**

39. Parmar.R (2004)," knowledge attitude and practices of parents of children with primary complex", **Journal of post graduate medicine, January 2002.**

40. Ray .B(2004),: epidemiology of tuberculosis", **Journal of Indian medical association, may 2002.**

WEBSITE

1. http://**www.pubmed.**com
2. http://**www.medline.**com
3. http://**www.google.**com
4. http://**www.jedbro**.com
5. http://**www.wikipedia**.com

APPENDIX- I

TOOLS

I SOCIO DEMOGRAPHIC VARIABLES

1. Age of the mother in years.

a) 18-20 years ( )

b) 21-25 years ( )

c) 25 and above ( )

2. Religion

a) Hindu ( )

b) Muslim ( )

c) Christian ( )

3. Educational status of care taker

a) Illiterate ( )

b) Primary school level ( )

c) High school level ( )

d) Higher secondary level ( )

e) Collegiate ( )

4. Family Income per month

a) Below Rs.1000 ( )

b) Rs.1001-Rs.3000 ( )

c) Rs.3001-Rs.5000 ( )

d) Above Rs.5000 ( )

5. Occupational status of the father

a) Coolly ( )

b) Self employed ( )

c) Private employee ( )

d) Government employee ( )

6. Occupational status of the mother

a) Housewife ( )

b) Coolly ( )

c) Self employed ( )

d) Private employee ( )

e) Government employee ( )

7. Residential area of child

a) Urban ( )

b) Rural ( )

8. Type of family

a) Joint ( )

b) Nuclear ( )

9. Number of children in the family

a) One ( )

b) Two ( )

c) Three and above ( )

10. Type of marriage of the parent's

a) Consanguineous ( )

b) Non consanguineous ( )

11. Immunization of the child

a) Immunized till age ( )

b) Non immunized ( )

12. Family history of tuberculosis

a) Yes ( )

b) No ( )

13. Method of drainage

a) Closed ( )

b) Open ( )

14. Sources of health information through

a) Mass media ( )

b) Health team personnel ( )

c) Friends and relatives ( )

APPENDIX-II

II KNOWLEDGE ASSESSMENT QUESTIONNAIRE

1. **Primary complex is a**

   a. communicable disease

   b. non communicable disease

   c. congenital disease

   d. hereditary disease

2. **Primary complex occurs commonly in**

   a. children

   b. adolescents

   c. adult

   d. old age

3. **Primary complex is among people living in**

   a. village

   b. town

   c. semi rural

   d. slum

4. **Primary complex is commonly acquired in children with**

a. malnutrition

b. diarrhea

c.anemia

d. obesity

5. Malnutrition can be identified through

a. avoiding certain foods

b. child with good eating

c. liking certain foods

d. good energy level

6. Prolonged exclusive breast feeding leads to

a. malnutrition

b. balanced nutrition

c. malabsorption

d. over weight

7. Malnutrition is often associated with

a. headache

b. joint pain

c. weight loss

d. hyperactive

8. Causes of malnutrition

a. impaired nutrition intake

b. good nutrition intake

c. decrease absorption

d. decrease metabolic intake

9. Imbalanced diet intake leads to

a. healthy baby

b. psychological problems

c. malnutrition

d. night blindness

10. primary complex affects the

a. lungs

b. brain

c. kidney

d. heart

11. primary complex in children is due to

a. failure to vaccinate

b. low dosages of vaccine

c. exposure to allergens

d. immunized child

12. The causative organism of primary complex is

a. virus

b. bacteria

c. fungi

d. parasite

13. The mode of transmission of primary complex is through

a. ingestion

b. inhalation

c. inoculation

d. transfusion

14. Primary complex spreads through

a. coughing

b. talking

c. touching

d. sharing foods

15. the initial infection usually occurs with in

a. 3-8 weeks

b. 8-13 weeks

c. 13-18 weeks

d. 18-23 weeks

16. The initial signs and symptoms of primary complex are

a. chronic cough/fever/weight loss

b. vomiting/nausea/anorexia

c. diarrhea/weight gain/alopecia

d. constipation/joint pain/sweating

17. Primary complex is diagnosed by

a. sputum test/mantoux test/x ray

b. stool/urine/blood

c. CT SCAN /ECG/MRI

d. endoscopy/serum electrolytes/FNAC

18. The mantoux test is given at

a. intradermal

b. intramuscular

c. intravenous

d. intraosseous

19. The reaction after mantoux test is done after

a. 8 hours

b. 10 hours

c. 24 hours

d. 48 hours

20. Tubercle bacilli can be killed by

a. washing

b. wiping

c. burning

d. burying

21. DOTS therapy should be taken up to

a. 1-2 months

b. 2-3 months

c. 3-4 months

d. 6-12 months

22. Children's who are at the risk of primary complex should take

a. chemoprophylaxis

b. anti hypertensive drug

c. anti cancer drug

d. anti diarrhea drug

23. The spread of infection is reduced by keeping the environment in

a. good light

b. over crowding

c. good ventilation

d. pure water

24. While coughing the infected person should

a. close the mouth

b. open the mouth

c. cover the mouth with cloth

d. not cover the mouth with cloth

25. The preferred diet for the primary complex child is

a. high protein

b. fat foods

c. vitamins

d. fibers

26. Sputum must be collected in a

a. cup

b. closed container

c. bucket

d. wide mouth container

27. BCG vaccination is given against

a. malaria

b. measles

c. primary complex

d. polio

28. BCG vaccination is given at the time of

a. birth

b. first month

c. Second month

d. Third month

29. The best method of preventive measures of primary complex is

a. BCG vaccination

b. mosquito control

c. drug therapy

d. sanitation control

30. Complication of primary complex is

a. diarrhea

b. rheumatic fever

c. malnutrition

d. pleural effusio

APPENDIX-III

OUTLINE OF THE EDUCATIONAL INTERVENTION

TOPIC: PREVENTION OF THE PRIMARY COMPLEX

GROUP: MOTHERS OF THE MALNOURISHED CHILDREN

PLACE: COMMUNITY URBAN HEALTH CENTER, MADURANTAKAM

INSTRUCTOR: M.SC (NURSING) II YEAR STUDENT

TIME: 45 MINUTES

METHODS: LECTURE CUM DISCUSSION

TEACHING AIDS: FLASH CARDS AND CHARTS

SELF INSTRUCTION:

Good morning Iam a M.sc(nursing) II year student of adhiparasakthi college of Nursing.iam going to teach you about primary complex meaning, causes, prevention and its management. I Request you to all to participate in this class. At the end of the session you all request to clarify the doubts.

CENTRAL OBJECTIVE:

Help the mothers acquire adequate knowledge and develop their desirable attitude about meaning, causes, clinical manifestations, diagnosis, treatment, prevention of child with primary complex.

CONTRIBUTORY OBJECTIVE:

The mothers are able to

- ❖ mention the term primary complex
- ❖ list out the causes and risk factors of primary complex
- ❖ enlist the clinical manifestations of primary complex
- ❖ explain the diagnosis of primary complex
- ❖ enumerate the treatment of primary complex
- ❖ state the preventive measures of primary complex

s.no	Contributory objective	time	content	Teachers activity	Learners activity
1.	The mothers are able to mention the meaning of the term primary complex	2min	**PRIMARY COMPLEX** **DEFINITION**: The typical lesions of primary pulmonary tuberculosis consisting of a small peripheral focus of infection with hilar or paratracheal lymph node involvement.	Explaining	Listening
2.	the mothers are able to list out the causes of primary complex	5min	**RESERVOIR OF INFECTION:** The infection is spread by the tuberculous patient, who discharges tubercle bacilli in his sputum or nasopharyngeal secretions during bouts of coughing or sneezing. Such patients are open or infective cases MODE OF INFECTION: Inhalation of droplets of infected secretions the infected sputum spitted carelessly by open cases of tuberculosis dries up and the tubercle bacilli are resuspended breathing in the dust and air. This may be a source of infection through breathing. rarely Infection may be transmitted through skin,	Explaining by using flash cards	Listening and asked doubts

			mucous membrane or transplacentally. **HOST FACTORS:** AGE: No age is exempt is tuberculosis. Tubercle bacilli are not transferred across the healthy placenta but the fetus may be infected from the infected placenta. SEX: the adolescent children especially the girls are more prone to develop active tuberculosis disease during puberty. MALNUTRITION: undernourished children are more susceptible to develop tuberculosis probably due to depressed immunological defenses. Tuberculosis may precipitate kwarshiokar marasmus in an infant with borderline under nutrition. A malnourished patient, who does not respond to the dietary therapy, should be promptly investigated for tuberculosis. IMMUNE DEFICIENCY: Children with	Explaining by using flash cards	Listening and asked doubts

3.	The mothers are able to enlist the clinical features of primary complex		primary or secondary immune deficiencies are more likely to develop disseminated disease. The diseases that affect the cell mediated immunity are more likely to increase the susceptibility INTERCURRENT INFECTION: A quiescent tuberculous infection may flare up after an attack of measles or pertusis. Measles may depress delayed hypersensitivity to tuberculous proteins ENVIRONMENT: The risk of acquiring infection has been associated consistently with the extent of contact with the index case the burden of organisms in the sputum and the frequency of cough in the index case. Patients with smear positive pulmonary tuberculosis are more likely to transmit infection **CLINICAL FEATURES:** PRIMARY INFECTION: ➢ Asymptomatic ➢ Form of mild fever ➢ Anorexia		Listening and asked doubts

			➢ Weight loss ➢ Decreased activity ➢ Irritating dry cough **PROGRESSIVE PRIMARY DISEASE:** ➢ High grade fever ➢ Cough ➢ Expectoration of sputum ➢ hemoptysis ➢ Abnormal chest signs consist mainly of dullness decreased air entry ➢ Crepitations **MILIARY TUBERCULOSIS:** ➢ High grade fever ➢ Dyspnea ➢ Cyanosis		Listening and asked doubts

4.	The mothers are able to explain the diagnosis of primary complex		➢ The illness may be severe with the child having high fever rigors and alterations of sensorium ➢ Lymphadenopathy and hepato spleenomegaly ➢ Meningitis may occur in 20-30 % of cases **DIAGNOSIS:** Tuberculosis is difficult to diagnose in children because a lot of the methods used to diagnose the disease such as chest radiographs, have difficulty distinguishing tuberculosis in child from other chest and lung infections such as pneumonia History of contact with adult parents Clinical features may be non specific and chest radiograph and mantoux test are difficult to interpret Although, demonstration of		Listening and asked doubts

			mycobacterium in various clinical specimens remains gold standard this is often not possible in children due to the pauci bacillary nature of the illness A history of contact with an infective case contact is defined as any child who lives a house hold with an adult taking anti tubercular therapy or has taken such therapy in past two years A history of contact is available is less than one third of the patients Contacts can often be traced to maid servant, cook, domestic aid or gardener in case of tuberculous children from well to do families with healthy parents Tracing of contactis important not only for confirming the diagnosis but also for protection of other vulnerable children from the disease. Various scoring systems have been developed for diagnosis of tuberculosis. In these scoring system more weightage is given to laboratory test i.e, demonstration of acid fast bacilli, tubercles histology, suggestive radiology and tuberculin test > 10 mm induration. These scoring systems are not used routinely.		Listening and asked doubts

			LABORATORY TEST: The diagnostic tests for pulmonary tuberculosis can be divided In to two categories: a) Demonstration or isolation of mycobacterium tubercle or one of its components b) Demonstration of hosts response to exposure to mycobacterium tubercle **DEMONSTRATION OF MYCOBACTERIUM TUBERCLE OR ITS COMPONENTS**: Mycobacterium tubercle can be demonstrated by a) ziehl nielson staining b)Special strains c) Cultures d) Polymerase chain reaction e) Other methods The above methods can be used on sputum, gatric lavage, bronchoscopic lavage fluid or pleural fluid. The best specimen for demonstration of mycobacterium tubercle in children is the early morning gastric aspirate obtained by using a nasogastric tube before		Listening and

			the child arises. For better results three consecutive specimen of gastric aspiration are recommended. If a delay in the processing of specimen is expected the gastric acid should Be neutralized with sodium bicarbonate for higher yield **CULTURE:** Lowenstein Jensen medium is the most widely used medium for determination of characteristic features of colonial morphology, growth rate and pigment production. Though the culture technique is simple 7-10 week of incubation may be necessary for detection of organisms. Microscopic examination of thin layer culture plate may lead to detection of micro colonies of mycobacterium tubercle as early as after 7 days. **TUBERCULIN SKIN TEST:** Tuberculin skin test is the most important indicator of whether a child has been		asked doubts Listening and asked

			infected with the tubercle bacillus. The standard dose of purified protein derivative is five tuberculin units which is administered using a 27 gauge needle and 1 ml syringe intradermally in to the volar aspect of the forearm **RESULTS IN INFANTS, CHILDREN AND ADOLESCENTS:** Induration > 5mm: children in close contact with known or suspected contagious cases of tuberculosis disease Children receiving immunosuppressive therapy Induration > 10 mm: children at increased risk of disseminated disease those younger than four years of age Induration > 15mm: children four years age or older without any risk factors **INTERPRETATION OF MANTOUX TEST:**		doubts

			<table><tr><th>SIZE OF INDURATION</th><th>INTERPRETATION</th></tr><tr><td>< 10mm</td><td>Negative, no active disease</td></tr><tr><td>5-10mm</td><td>Borderline, consider positive in immune compromised host</td></tr><tr><td>>10mm</td><td>positive</td></tr></table> RADIOLOGY: chest x ray has an important role in diagnosis of childhood tuberculosis, especially pulmonary tuberculosis. In extra pulmonary tuberculosis presence of lesions on chest x ray supports diagnosis. The typical chest x ray appearance of a pulmonary primary complex is that of an air space consolidation of variable size usually unifocal and homogenous. Enlarged lymph nodes are usually seen in the hila, right paratracheal region Consolidationin progressive primary disease is usually heterogenous, poorly marginated		

			with predilection of involvement of apical or posterior segments of upper lobe or superior segment of lower lobe. There may be features of collapse as well. In military tuberculosis there are multiple lesions of size 2-5 mm. occasionally the chest radiograph may be normal and lymph adenopathy may be detected on computed tomography which is not evident radiographically. Contrast enhanced MRI is emerging as a very useful technique for diagnosing CNS tuberculosis, as it demonstrates the localized lesions, meningeal enhancement and brain stem lesions.		

<table>
<tr>
<td>5.</td>
<td>The mothers are able to enumerate the treatment</td>
<td></td>
<td>
TREATMENT:

The principles of therapy in children with tuberculosis are similar to that of adults

COMMONLY USED DRUGS IN CHILDHOOD TUBERCULOSIS:
<table>
<tr><th>drugs</th><th>Dose/mg/kg/ day</th><th>Side effects</th></tr>
<tr><td>Isoniasid</td><td>5, q 24 hour</td><td>Hepato toxicity, fever, hypersensitivity, rash, neuritis, psychosis, seizures</td></tr>
<tr><td>Rifampicin</td><td>10, q 24 hour</td><td>Nausea, vomiting, flu like symptoms blood</td></tr>
</table>
</td>
<td></td>
<td></td>
</tr>
</table>

					dyscrasia, wheezing, arthralgia		
			Streptomycin	10-30, q 24 hour	Ototoxicity, vestibular or hearing loss, rash, fever, arthralgia, pperipheral neuritis		
			Ethambutol	15-25, q 12 hour	Gastro intestinal upset, confusion, dizziness, rash, fever, joint pain, optic neuritis		
			Pyrazinamide	25-35, q 24 hour	Malaise, fever, arthralgia,		

					thrombocytopenia, dysuria, gastro intestinal upset, hepato toxicity		
			Ethionamide	15-20, q 12 hour	Rash, gastro intestinal upset, peripheral neuropathy, gynaecomastia, alopecia, diplopia, blurred vision, tremors		
			cycloserine	15-20, q 12 hour	Seizures, psychosis, peripheral		

					neuritis		
			DRUG REGIMENS: During the last few years, changes have occurred in the therapeutic approach to childhood tuberculosis as a result of large number of treatment trials for children and concern about the resistance of anti tuberculosis drugs Short course chemotherapy with the treatment duration as short as six months has become the standard practice The major problem in inclusion of children in directly observed treatment short course(DOTS) program has been a difficulty in demonstration of acid fast bacilli and classification of different clinical manifestations		

according to categories

There have been efforts to develop classification of different tuberculosis in to three categories similar to those for adults

Recently a consensus statement jointly prepared by Indian academy of pediatrics and revised national tuberculosis control program (RNTCP) has also proposed a classification of different types of tuberculosis in children in to three categories.

STANDARDIZED CLINICAL CATEGORIES AND CLINICAL CONDITIONS:

categories	Suggested conditions in children	Suggested regimens #
Category I	Pleural effusion, abdominal, CNS tuberculosis	2HRZE+4HR (or) 2SHRZ+4HR
Category II	Relapse,	

				treatment failure, interrupted treatment	2SHRZE+1HRZE+5HRE		
			Category III	Single lymphnode, small effusion, skin tuberculosis	2HRZ+4HR		
			H- isoniazid, R-rifampicin,E- ethambutol,S-streptomycin # denotes number of months for which the drug to be given .example. 4HR- 4 months **PREVENTION:** The only definite means to prevent tuberculosis is to avoid contact with the tubercle bacillus Maintaining an optimal state of health with adequate nutrition and avoiding fatigue			
6.	The mothers are able to state the prevention of						

	primary complex		and debilitating infections promote natural resistance but do not prevent infection Pasteurization and routine testing of milk and elimination of diseased cattle have reduced the incidence of bovine tuberculosis Limited immunity can be produced by administration of bacilli calmette Guerin a live vaccine containing bovine bacilli which reduced virulence(attenuated) In most instances positive tuberculin reactions develop after inoculation with bacilli calmette Guerin The distribution of bacilli calmette Guerin is controlled by local or state health departments and the vaccine is not used extensively even in areas with a high prevalence of disease. Recommended for long term protection of infants and children with negative tuberculin skin test who are not infected with HIV and who are at high risk for continuing exposure to persons with infectious pulmonary tuberculosis or continuously exposed to persons with tuberculosis who have bacilli resistant to both isoniazid and rifampicin when the child cannot		

			be removed from the environment or given anti tuberculosis drug therapy(American academy of pediatrics) **COMPLICATIONS:** • Local hemoptysis • Post tuberculous • Pleural effusion • Bronchiectasis • Aspergilloma • Spontaneous pneumothorax • Scar carcinoma • Tuberculosis endobronchitis • Secondary pyogenic infections • Obstructive airway disease • Disseminated calcification of the lungs		

jåeg® égu«

1. jhæ‹ taJ

   m. 18 Kjš 21 taJ
   M. 22 Kjš 25 taJ
   Ï. 25 taÂ‰Fnkš

2. kj«

   m. ïªJ
   M. K°Ä«
   Ï. »¿°Jt«
   <. k‰wit

3. fšé¤jFÂ

   m. go¥g¿t‰wt®
   M. Mu«g fšé
   Ï. Ïilãiy fšé
   < . ca®ãiy¡ fšé
   c. g£l go¥ò

4. FL«g¤Â‹ khjtUkhd«

   m. %. 1000 Fiwthd
   M. %. 1001 Kjš %.3000 tiu
   Ï. %.3001 Kjš %.5000 tiu
   <. %. 5000 nkš

5. jªijæ‹ bjhêš

   m. Tè
   M. Rabjhêš
   Ï. jåah® bjhêš
   <. muR¥ gâ

6. jhæ‹ bjhêš

   m. FL«g¤jiyé
   M. Tè

Ï. Rabjhêš
<. jåah® bjhêš
c. muR¥gâ

7. FHªijæ‹ ÏU¥ÃI«
m. »uhk«
M. efu«

8 . FL«g mik¥ò

m. jå¡FL«g«
M. T£L¡ FL«g«

9. FL«g¤Âš cŸs FHªijfë‹ v©â¡if

m. x‹W
M. Ïu©L
Ï. K‹W k‰W« mj‰F nkš

10. bg‰nwhç‹ ÂUkz Kiw

m. cwÎ Kiw ÂUkz«
M. cwÎKiw Ïšyhj ÂUkz«

11. FHªij¡F ÃwªjÎl‹ jL¥óÁ nghl¥g£LŸsjh?

m. M«
M. Ïšiy

12. FL«g¤Âš vtU¡nfD« fhrnehŒ cŸsjh

m. M«
M. Ïšiy

13. fêÎ Ú® mf‰W« Kiw

m. Âwªj Kiw fhšthŒ
M. _oa Kiw fhšthŒ

14. Rfhjhu jftšfŸ bgW« Kiw

m. Rfhjhu Jiwæd®
M. jftš bjhl®ò rhjd§fŸ
Ï. e©g®fŸ / cwéd®fŸ

Ñœfh©gdt‰WŸ rçahd éilia nj®ªbjL¡fÎ«

1. fhr nehŒ v‹gJ
   m. bjh‰W nehŒ
   M. bjh‰W nehŒ mšy
   Ï. kuò nehŒ
   <. gu«giunehŒ

2. fhr nehahš bgU« ghY« ghÂ¡f¥gLgt®
   m. FHªijfŸ
   M. ÏstaÂd®
   Ï. thèg®fŸ
   <. KÂat®fŸ

3. fhrnehŒ mÂfkhf vªj¥gFÂfëš fhz¥gL«

   m. »uhk«
   M.efu«
   Ï. Cuh£Á
   < .nrç

4. fhrnehahš bghJthf ghÂ¡f¥gL« FHªijfŸ
   m. rtiy¡ FHªij
   M. tæ‰W¥ ngh¡F
   Ï. Ïu¤jnrhif
   <. clš gUk‹

5. r¤J Fiwghoid milahs« f©LbfhŸS« Kiw

m. Áy czÎfis c£bfhŸshkš jé®¤jš
M. czit e‹whf c£bfhŸSjš
Ï. éU«Ãa Áy czÎfis k£L« c©Qjš
<. ešy Mnuh¡»a¤Jl‹ ÏU¥gJ

6. jhŒ¥ghš k£Lnk FHªij¡F mÂfeh£fŸ bfhL¡f¥gLtjhš V‰gL« éisÎfŸ
m. r¤J FiwghL
M.rçé»j C£l¢r¤J
Ï. mf¤J¿Šrhik
<. clš gUk‹

7. r¤JFiwghLl‹ nr®ªJ fhz¥gL« m¿F¿fŸ
m. jiytè
M. _£L tè
Ï. vilFiwÎ
<. Ïa‰if Û¿a RWRW¥ò

8. r¤J Fiwgh£o‹ fhuz«
m. nghÂa r¤jhd czÎ c£bfhŸshik
M. rçé»j czÎ c£bfhŸSjš
Ï. Fiwªj mséyhd mf¤J¿Šrhik
<. Fiwªj ts®Áij kh‰w«

9. rkãiya‰w czÎ c£bfhŸtjdhš tU« éisÎfŸ
m. Mnuh¡»akhd FHªij
M. cséaš Ãu¢ridfŸ
Ï. r¤JFiwghL
<. khiy¡f©nehŒ

10. fhrnehahš ghÂ¡f¥gL« clš cW¥ò
m. Eiupuš
M. _is
Ï. fšÄuš
<. ÏUja«

11. FHªijfS¡F fhrnehŒ tufhuz«
m. jL¥óÁ nghlhÂU¤jš
M. Fiwªj kU¤Â‹ msÎ

Ï. x›thik
<. jL¥óÁ nghLjš

12. fhrnehŒ¡fhd »Uä
m. itu°
M. óŠir
Ï. gh¡Oçah
<. x£L©â

13. fhrnehæ‹ gçkh‰w Kiw
m. c£bfhŸSjš
M. RthÁ¤jš
Ï. njhèš CLUÎjš
< Ïu¤j V‰Wjš

14. fhrnehŒ guÎ« éj«
m. ÏUkš
M. ngRjš
Ï. bjhLjš
<. g»®ªJ c©Qjš

15. fhrnehŒ guÎtj‰fhd Kj‹ik fhyf£l«
m. 3-8 thu§fŸ
M. 8-13 thu§fŸ
Ï. 13-18 thu§fŸ
<. 18-23 thu§fŸ

16. fhrnehæ‹ Mu«gfhy m¿F¿fŸ
m. bjhl® ÏUkš / mÂf clš bt¥g« / vil Fiwjš
M. thªÂ / Fk£lš/ gÁæ‹ik
Ï. tæ‰Wngh¡F / vil mÂfç¤jš / KocÂ®jš
<. ky¢Á¡fš / _£Ltè/ éa®¤jš

17. fhrnehŒ f©l¿Í« Kiw
m. rëgçnrhjid/ kh‹bl¡° gçnrhjid / v¡°nu
M. ky« / ÁWÚ®/ Ïu¤j«

Ï. Á.o.°nf‹ / RUŸgl«/ v~¥v‹. V.Á
<. v©nlh°nfhÃ / Ïujj¥gçnrhjid / Óu« vy¡nuhiy£°

18. fhrnehŒ gçnrhjid CÁia clèš nghL« Ïl«
m. njhš
M. jir
Ï. eu«ò
<. vY«ò

19. fhrnehŒ gçnrhjid CÁia ngh£lÃ‹ gçnrhÂ¡f nt©oa neu«

m. v£L kâneu« fê¤J
M. g¤J kâneu« fê¤J
Ï. ÏUg¤Â eh‹F kâneu« fê¤J
<. eh‰g¤bj£L kâneu« fê¤J

20. fhrnehŒ »Uäia mê¡f¥gL« éj«
m. fGÎjš
M. Jil¤jš
Ï. vç¤jš
<. òij¤jš

21. lh£° Á»¢irKiw bfhL¡f¥gl nt©oa fhy msÎ
m. x‹W Kjš Ïu©L khj§fŸ
M. Ïu©L Kjš _‹W khj§fŸ
Ï. _‹W Kjš eh‹F khj§fŸ
<. MW khj§fŸ Kjš xUtUl« tiu

22. mÂf nehŒ¡fhd thŒ¥òŸs FHªijfŸ vL¤J¡bfhŸs nt©oait
m. bjhl®¢Áahd kUªJ
M. Ïu¤j mG¤j kUªJfŸ
Ï. ò‰WnehŒ kUªJ
<. tæ‰W¥ ngh¡F kUªJ

23. fhrnehŒ R‰W¥òw¤Âš guthkš jL¡f Kiw
m. ešy Nça xë
M. mÂf T£l«
Ï. ešyfh‰nwh£l«
<. R¤jkhd Ú®

24. ghÂ¡f¥g£l eg® ÏU«ò« nghJ.
m. thia _o¡ bfhŸs nt©L«
M. thia Âwªj bfhŸs nt©L«
Ï. Jâahš thia _o¡bfhŸs nt©L«
<. Jâahš thia _lnt©lh«

25. fhrnehædhš ghÂ¡f¥g£l FHªijfS¡F bfhL¡f¥gl nt©oa czÎfŸ.
m. òuj¢ r¤J ãiwªj czÎfŸ
M. bfhG¥ò¢ r¤J ãiwªj czÎfŸ
Ï. it£lä‹ r¤J ãiwªj czÎfŸ
<. eh®¢ r¤J ãiwªj czÎfŸ

26. rëia vÂš nrfç¡f nt©L«
m. nfh¥ig
M. _oa Ftis
Ï. thë
<. mfy thŒ cŸs Ftis

27. Ã.Á.í jL¥óÁ jL¥ò CÁ vj‰fhf nghLt®
m. knyçah
M. m«ik
Ï. fhrnehŒ
<. nghènah

28. Ã.Á.í jL¥óÁ nghL« fhy«
m. ÃwªjÎl‹
M. Kjš khj«
Ï. Ïu©lh« khj«
<. K‹wh« khj«

29. fhrnehæid jL¡f Áwªj tê Kiw
m. Ã.Á.í jL¥óÁ
M. bfhR¡fo xê¥ò
Ï. kh¤ÂiufŸ c£bfhŸSjš
<. R‰WNHš Rfhjhu«

30. fhrnehæ‹ Ã‹ éisÎfŸ
m. tæ‰W¥ ngh¡F
M. Ukh£o¡ fhŒ¢rš

Ï. Mnuh¡»a k‰w FHªij
<. Rthr¡nfhshW

\

Â£l nghjid Kiw

jiy¥ò : fhrnehæid jL¡F« KiwfŸ

FG : r¤JFiwthd FHªijfë‹ jhŒkh®fŸ

Ïl« : ef®¥òw Rfhjhuika« ,kJuhªjf«

fšéahs® : o.gåky®

neu« : 45 ãäl§fŸ

f‰Ã¤jš Kiw : m¿Îiw k‰W« éthj«

brŒ és¡f bghU£fŸ : tiugl« étu m£il

bghJ neh¡f§fŸ:

totik¡f¥g£l Ï¡fšé gæ‰Á ãiwtilÍ« jUz¤Âš r¤jFiwghLila FHªijæ‹ jhŒkh®fŸ fhrnehæid g‰¿a és¡f«, fhuâfŸ, guÎ« KiwfŸ, m¿F¿fŸ, gçnrhjid Kiw,ÁÁ¡iir Kiw,jL¡F« KiwfŸg‰¿a m¿it ts®¤j¡ bfhŸsÎ« mt‰iw jL¡F« Kiwfis g‰¿ bjçªJ bfhŸsÎ« KoÍ«.

Jiz¡F¿¡nfhŸfŸ:

Â£lä£l nghjid Kiw¡F¥Ã‹ r¤jFiwghLila FHªijæ‹ jhŒkh®fŸ Ñœf©lt‰iw m¿ªJ filÃo¤jš nt©L«.

- fhrnehæ‹ és¡f«
- fhrnehŒ guÎ« Kiwæid F¿¥ÃLjš
- fhrnehŒ¡fhd m¿F¿æid R‰¿¡fh£lš
- fhrnehia cWÂ brŒtj‰fhd gçnrhjidfis m¿tJ
- fhrnehŒ¡fhd kU¤Jt Á»¢iria és¡»¡ TWtJ
- fhrnehæ‹ Ã‹ éisÎfis f©l¿tJ
- fhrnehŒ jL¥gj‰fhd Kiwfis étç¤J¢ brhštJ

m¿Kf¥gL¤Jjš:

tz¡f« eh‹ MÂguhr¡Â bréèa® fšYçæš KJãiy nk‰go¥ò gæY« khzé eh‹ Ï§F fhrnehæid jL¡F« KiwfŸ g‰¿ TWtj‰F tªJŸns‹. c§fŸ midtiuÍ« ÏÂš g§bfL¤J¡ bfhŸSkhW nf£L¡ bfhŸ»nw‹.

t,v©	Jiz¡F¿¡nfhŸfŸ	neu«	bghUsl¡f«	f‰Ã¥gtç‹ braš	f‰gtç‹ braš

1	fhrnehæ‹ és¡f«	2 ãäl«	**fhrnehŒ:** fhrnehŒ v‹gJ ik¡nfh gh¡oça« oÍg®FnshÁ° v‹D« gh¡Oçahédhš V‰gL« bjh‰W nehahF« . mJ bghJthf Eiupuiy ghÂ¡»wJ. Mdhš ÏJ clè‹ k‰w ghf§fS¡F« mjhtJ _is, ÁWÚuf«,vY«ò k‰W« ãd cW¥òfS¡F« gutyh«.	tiugl« _y« étç¤jš	ftå¤jš
2	fhrnehŒ guÎ« Kiwæid F¿¥ÃLjš	5 ãäl«	**guÎ«Kiw:** ÏJ ghÂ¡f¥g£ltç‹ rëæš fhz¥gL« gh¡Oçahédhš ÃwU¡F fh‰¿‹ _y« guÎ»wJ.ghÂ¡f¥g£lt®fŸ ÏU«ò« nghJ«,J«kè‹ nghJ« Ï¡»Uä btëna¿ nehŒ vÂ®¥ò¤ j‹ik Fiwªjt®fis jh¡F»wJ.. fhrnehahëæl« bjhl®ò cilat®fŸ mÂf beU¡fkhd Ïl§fëš tÁ¤jš, r¤JFiwªj FHªijfS¡F nehŒ gut mÂf thŒ¥òŸsJ	tiugl« _y« étç¤jš	ftå¤jš
3	fhrnehŒ¡fhd m¿F¿æid R‰¿¡fh£lš	15 ãäl«	**m¿F¿fŸ:** ❖ fhŒ¢rš ❖ vilFiwÎ ❖ ÏUkš ❖ rëÍl‹ Toa Ïu¤j« ❖ gÁæ‹ik	tiugl« étu m£il _y« étç¤jš	ftå¤jš

4	fhrnehia cWÂ brŒtj‰fhd gçnrhjidfis m¿tJ	15 ääl«	gçnrhjidfŸ ❖ KGikahd tuyhW k‰W« clš gçnrhjid ❖ v¡°nu (CL fÂ®gl«) ❖ rë gçnrhjid ❖ njhš gçnrhjid	tiugl« étu m£il _y« étç¤jš	ftå¤jš
5	fhrnehŒ jL¥gj‰fhd Kiwfis étç¤J¢ brhštJ	10 ääl«	**jL¡F« KiwfŸ:** FHªij Ãwªj xU Áy eh£fS¡FŸ Ã.Á.í v‹D« jL¥óÁ nghLtj‹ _y« fhrnehia jL¡fyh«. FHªijfS¡F rçé»j C£l¢r¤J bfhL¡f nt©L« òuj¢r¤J ãiwªj czÎfis FHªijfS¡F bfhL¡f nt©L« ❖ Á»¢ir fhy« FiwªjJ 6 khj« Kjš 1 tUl« tiu Mfyh« ❖ kUªJ kh¤Âiufis¤ bjhl®ªJ c£bfhŸSjš mtÁa« ❖ jé®¤jš xJ¡Fjš TlhJ ❖ f©l Ïl§fëš v¢Áš J¥òtij jé®¤jš	tiugl« étu m£il _y« étç¤jš	

			❖ ÏUK« nghJ«, J«K« nghJ« thia R¤jkhd Jâahš bgh¤Â¡ bfhŸs nt©L« ❖ rëia ghè¤Ô‹ igæš nr®¤j, ÃwF mij Ôæè£L vç¤j éLtJ ešyJ. ❖ rçahd gçnrhjid k‰W« kU¤Jt KiwfS« Ï^{a}nehæ‹ j‹ikia¡ F¿¡F«. ❖ Ã.Á.í jL¥ò CÁfŸ nghLtj‹ _y« FH^{a}ijfS¡F fhrnehŒ tUtij jL¡F« thŒ¥ò cŸsJ. kU¤Jt Á»¢ir Kiw : tif 1 : 2HRSE+4HR(and)2SHR2+4HR tif 2 : 2SHRõE+1HRõE+5HRE tif 3 : 2HRõ+4HR H-InrhiaÁ£ R-ç¡gh«igÁ‹ E-v¤jh«ó£lhš S-°bl¥nlhikÁ‹	tiugl« étu m£il _y« étç¤jš	ftå¤jš

6	fhrnehæ¡fhd kU¤Jt Á»¢iria és¡»¡TWtJ	10 ãäl«			ftå¤jš

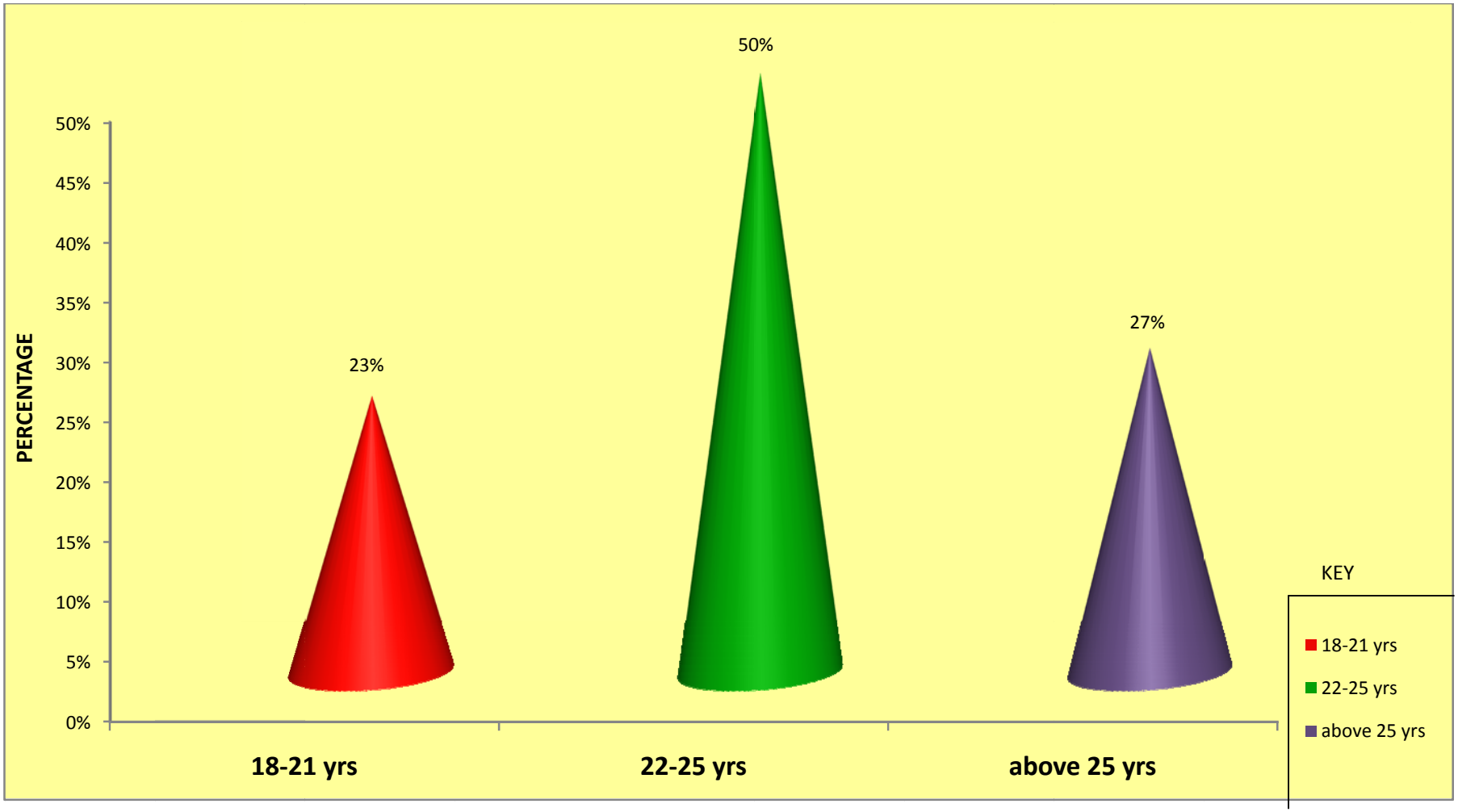


FIGURE.4.1: FREQUENCY AND PERCENTAGE DISTRIBUTION OF AGE

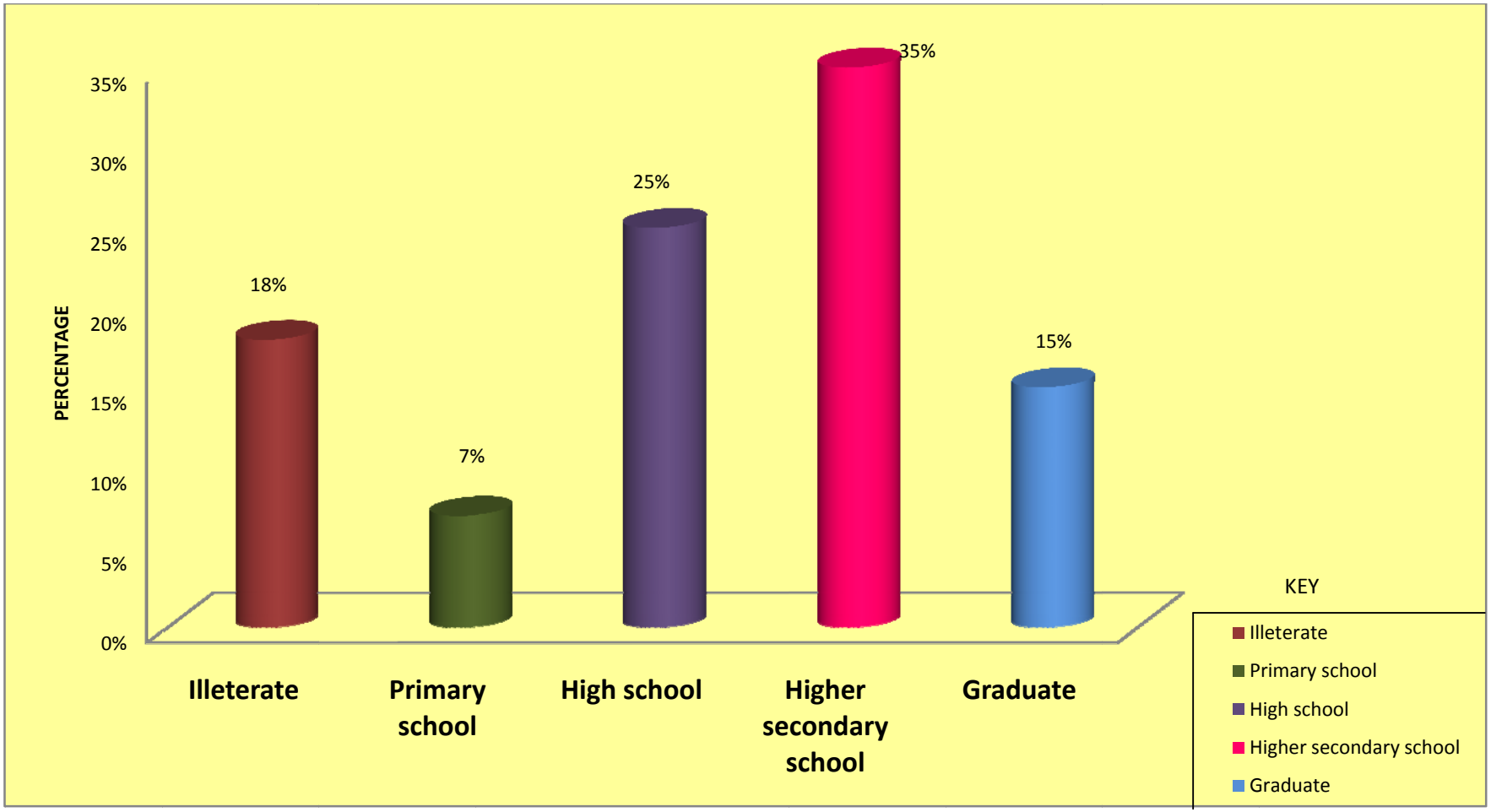


FIGURE.4.2: FREQUENCY AND PERCENTAGE DISTRIBUTION ON EDUCATIONAL STATUS OF MOTHER

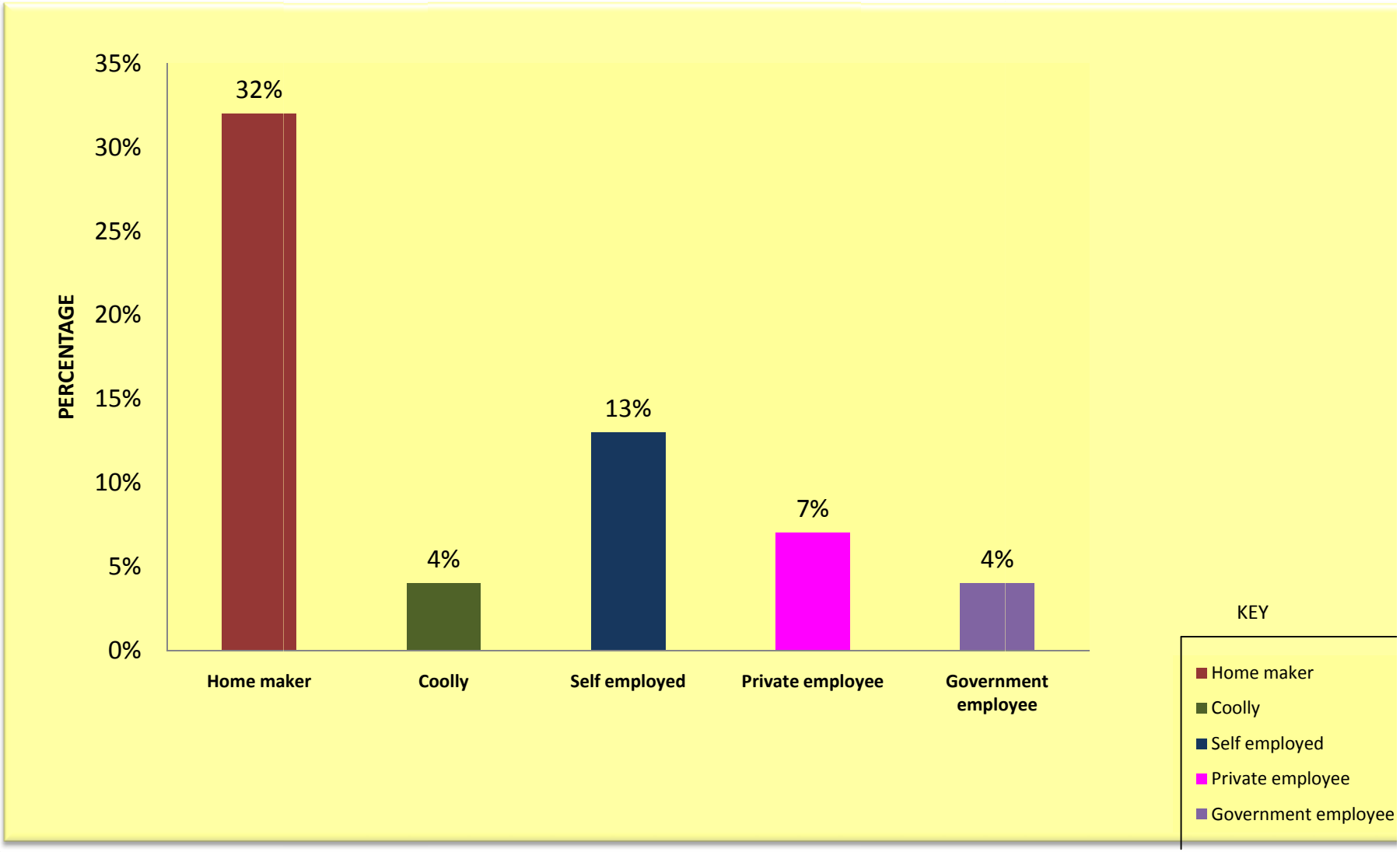


FIGURE.4.3: FREQUENCY AND PERCENTAGE DISTRIBUTION OF OCCUPATIONAL STATUS OF MOTHER

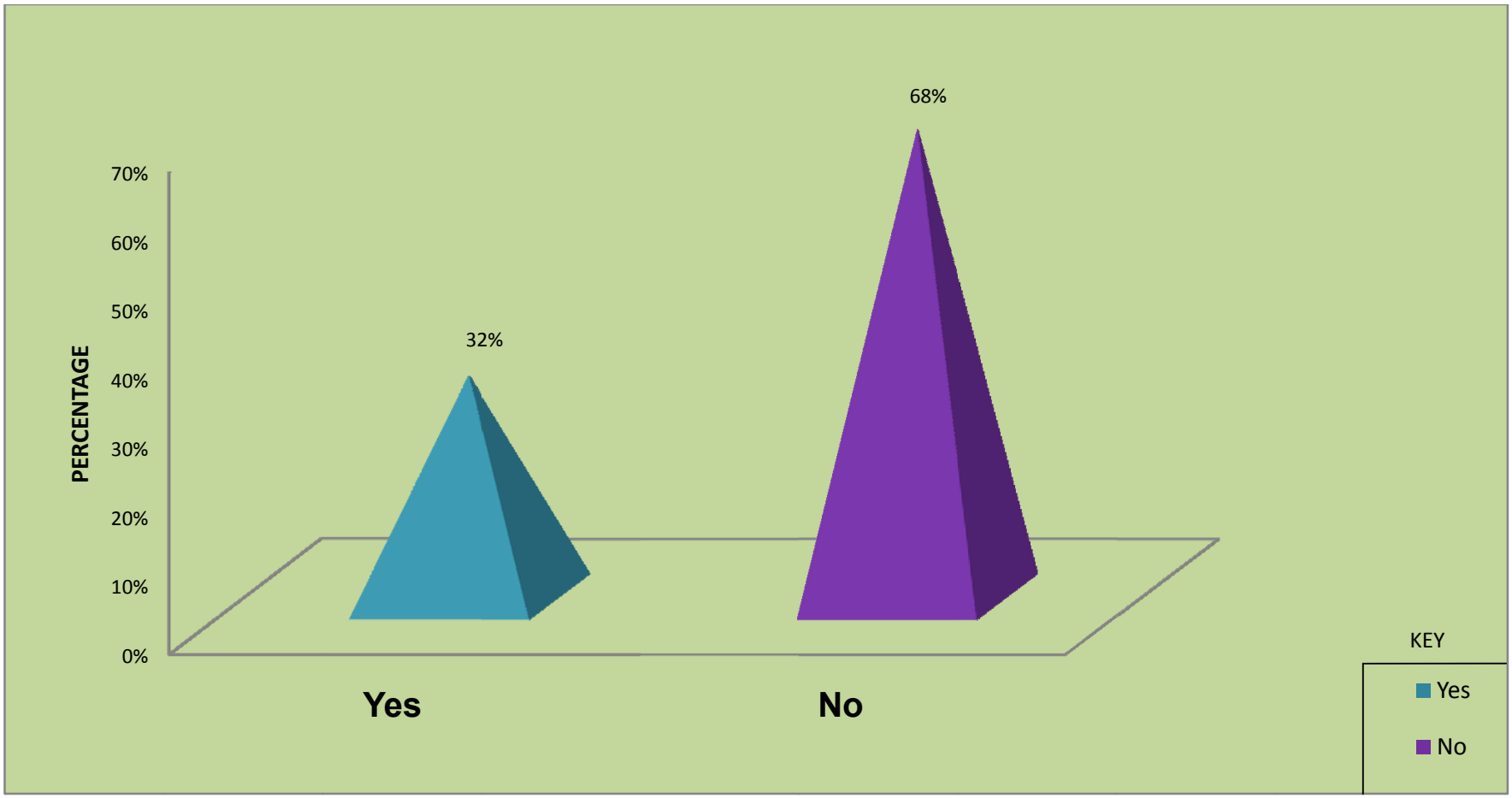


FIGURE.4.4: FREQUENCY AND PERCENTAGE DISTRIBUTION OF FAMILY HISTORY OF TUBERCULOSIS

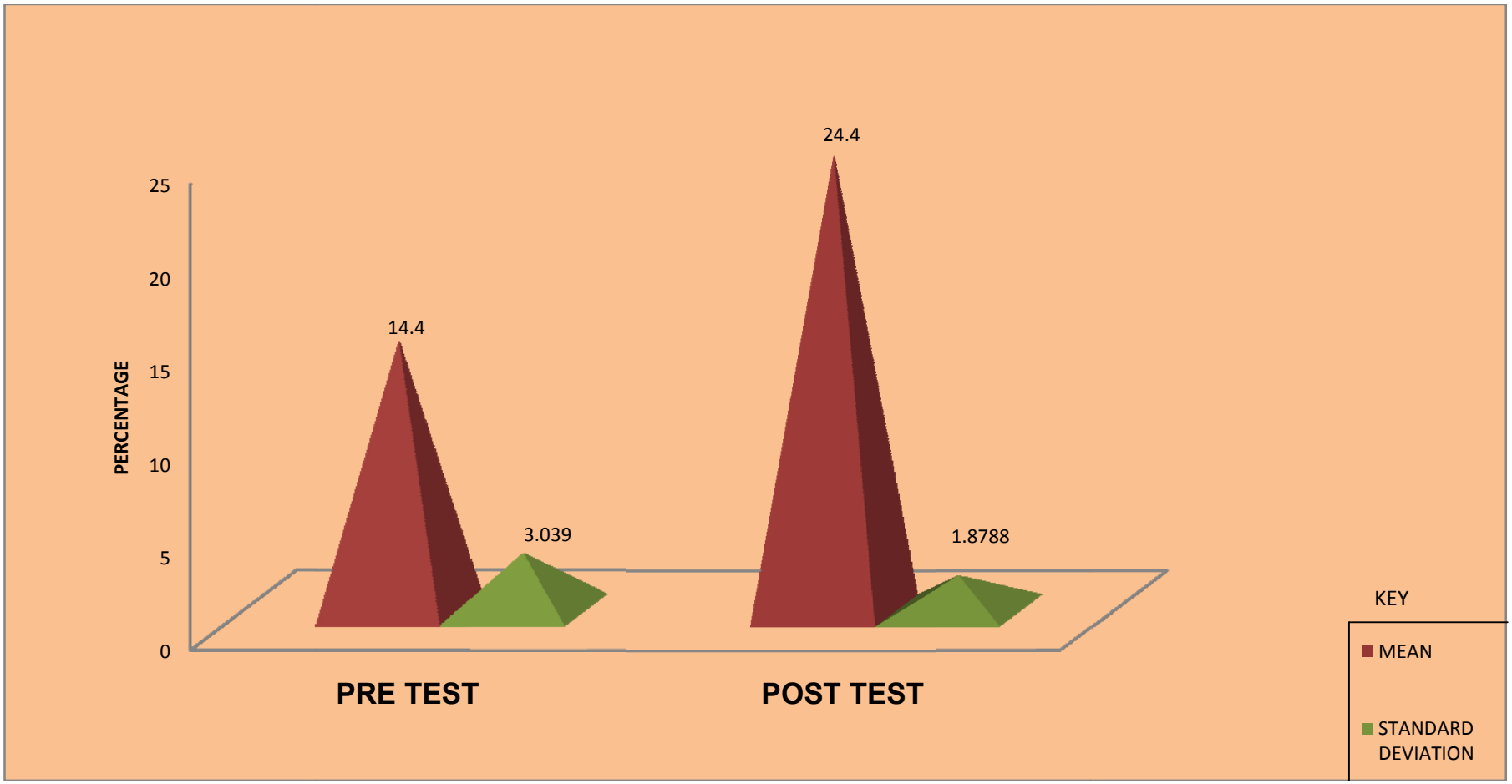


FIGURE 4.6: MEAN AND STANDARD DEVIATION OF PRE TEST AND POST TEST ON PREVENTION OF PRIMARY COMPLEX

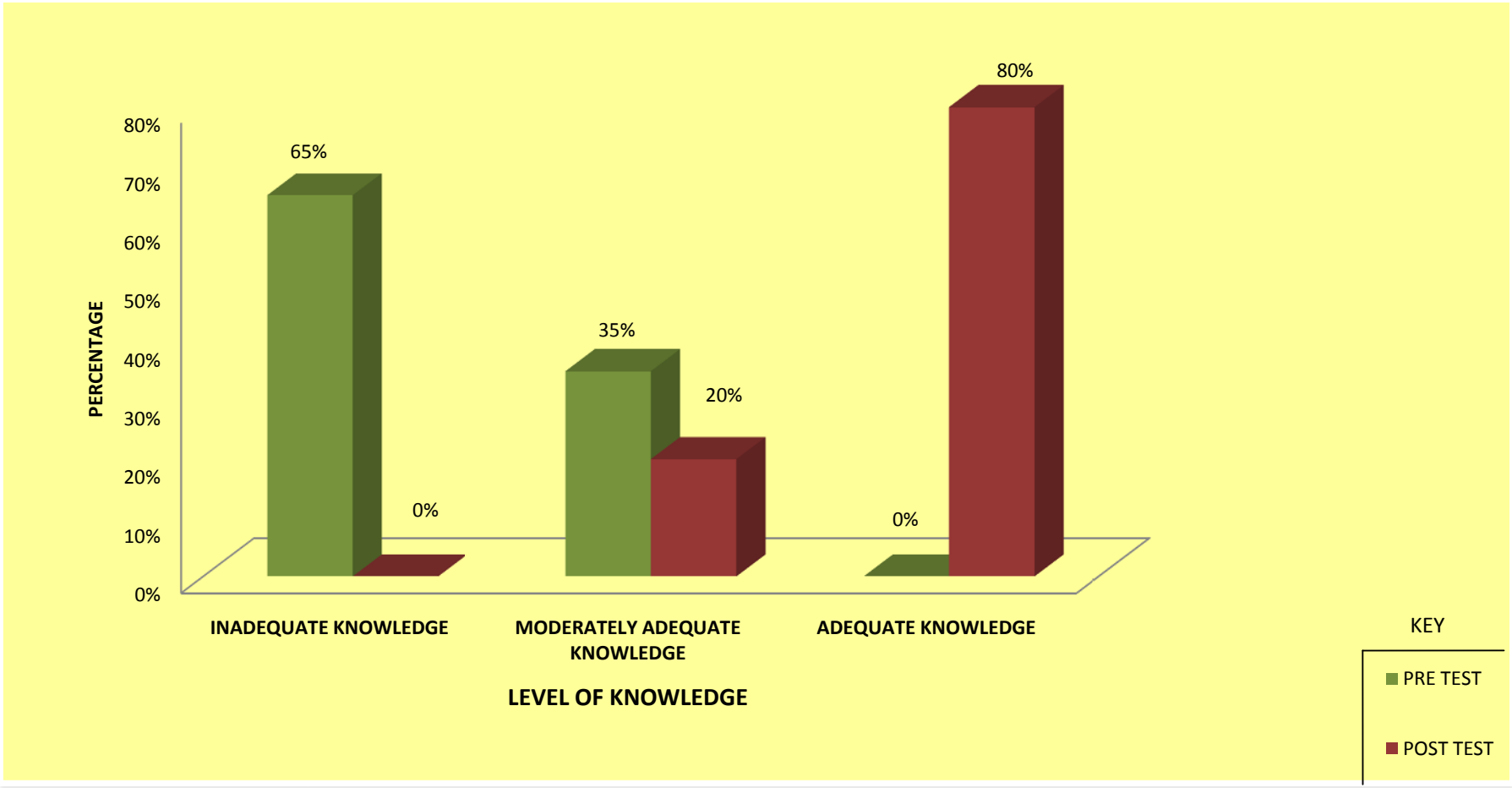
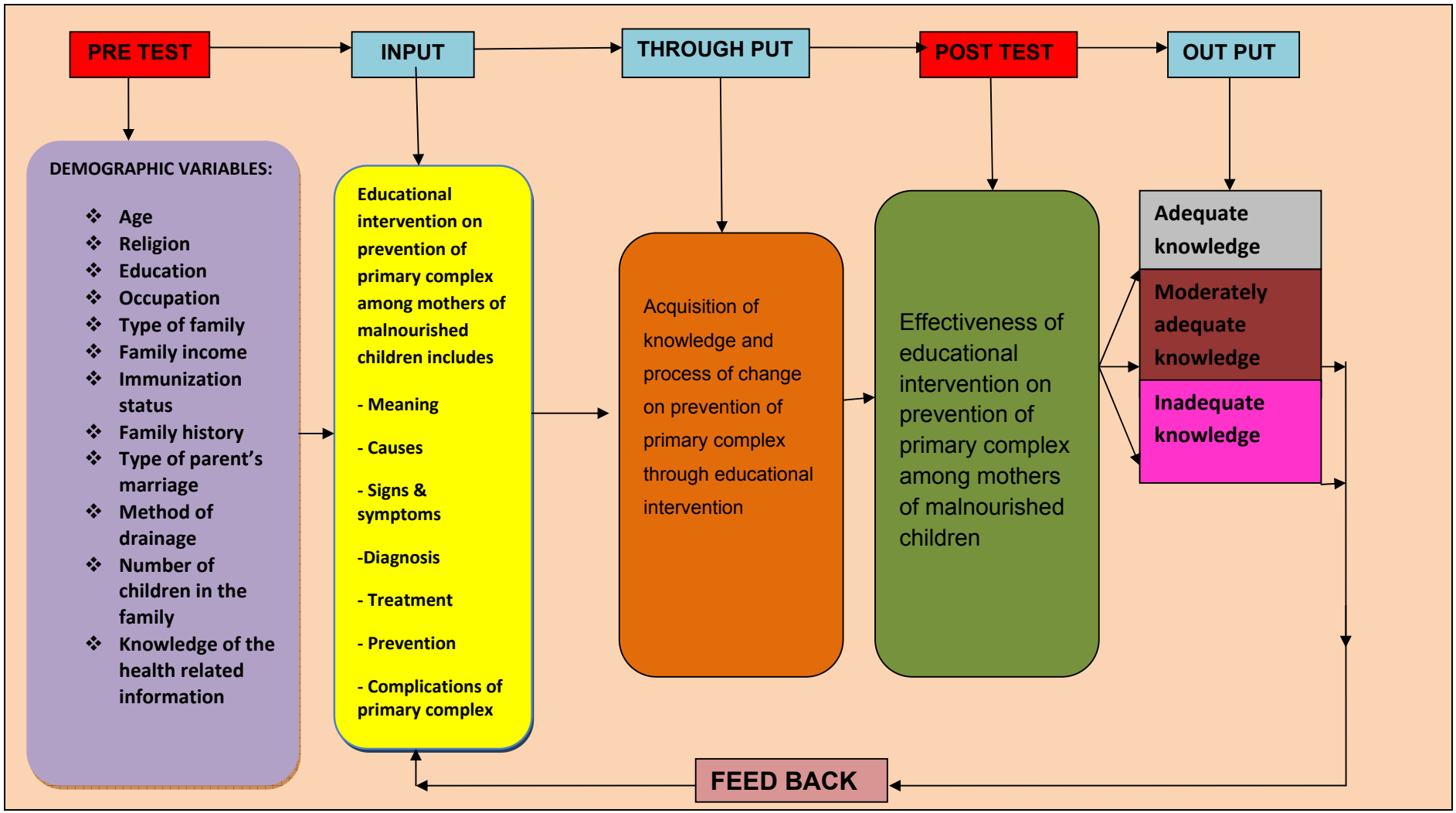


FIGURE.4.5: PERCENTAGE DISTRIBUTION BASED ON LEVEL OF KNOWLEDGE PRETEST AND POST TEST



MODIFIED VERSION VON-BERTALANNFFY'S GENERAL SYSTEM THEORY (2011)

SCHOLAR , INTRODUCING HERSELF

SCHOLAR , GIVING QUESTIONNAIRE FOR PRETES

SCHOLAR, GIVING EDUCATION INTERVENTION

SCHOLAR, CONDUCTING POST TEST